

Architecture & Design Scotland

Ailtearachd is Dealbhadh na h-Alba

CASE STUDY

In-Between Spaces in Further Education





Introduction

In-between spaces can be defined as the places and spaces in an environment that do not comply with a formal spatial definition or purpose and have the potential to bring together “disparate activities and character in a manner that creates valuable exchanges and connections.” [1]

In-between spaces may refer to the space between buildings, classrooms or transition spaces such as thresholds. Alternatively, the term might also be applied to unique places which defy conventional definitions.

The importance of these places lies in their ability to connect both places and people and encourage a valuable sense of community.

In *Learning Spaces*, Ditto defined in-between spaces as “providing the proper space for teaching and learning, we need more than a single place — educational activities are organic; they ebb and flow. What we really require is a complex of spaces — interconnected and related; designed to support learning. These spaces will be flexible and functional and pay greater attention to aesthetics than traditional 20th-century classrooms. This design concept extends beyond the places normally designated as “academic” such that the entire campus can become a learning space.” [2]

There is often an overlap between social learning spaces and In-between places. In-between spaces provide opportunities for a more passive type of social learning supporting the more active places such as the refectory or learning resource areas and providing students with a broad range of choices.

Key Learning Points

The following key learning points were identified as important to successful design of in-between spaces:

- Though similar to social learning spaces, in-between spaces act as a space for passive social learning where students can meet or gather away from quieter areas.
- Outdoor in-between spaces are often overlooked, but can enhance wellbeing, connecting people with nature and offering opportunities for learning and socialising alike.
- Innovative approaches to use of atrium spaces can be seen in cascading stairway seating, a ‘shopping mall’ approach to service distribution and informal learning opportunities
- A successful in-between space can be shrunk or expanded for varying needs, to enrich student experience by hosting events, acting as a social space and supporting circulation through the institution.

Clockwise from top left:
 Forth Valley College, City of Glasgow
 College; City Campus, Ayrshire College;
 Kilmarnock Campus, Inverness College;
 University of the Highlands and Islands.
 Images by BDP, Keith Hunter, Keppie and
 Reiach & Hall Architects.



Examples

This case study focuses on the best uses and design of the more passive in-between type of space found in recently completed Further Education (FE) projects. The primary examples illustrated in this study are drawn from four Scottish Colleges that have completed projects in the last five years.

Forth Valley College, Falkirk Campus

Forth Valley College (FVC) was established in 2005 from the merger of Falkirk College and Clackmannan College. The New Falkirk campus and HQ officially opened in January 2020 and is the largest of the institution's schools. The 21,000sqm facility designed by Reiach & Hall Architects was completed at a cost of £83m.

City of Glasgow College, Twin Campuses

The City of Glasgow College (CGC) was established when Central College, Glasgow Metropolitan College, and the Glasgow College of Nautical Studies merged in 2010 to create the largest college in Scotland. The twin sites of Riverside and City were opened in 2015 and 2016 respectively at a combined cost of £228m.

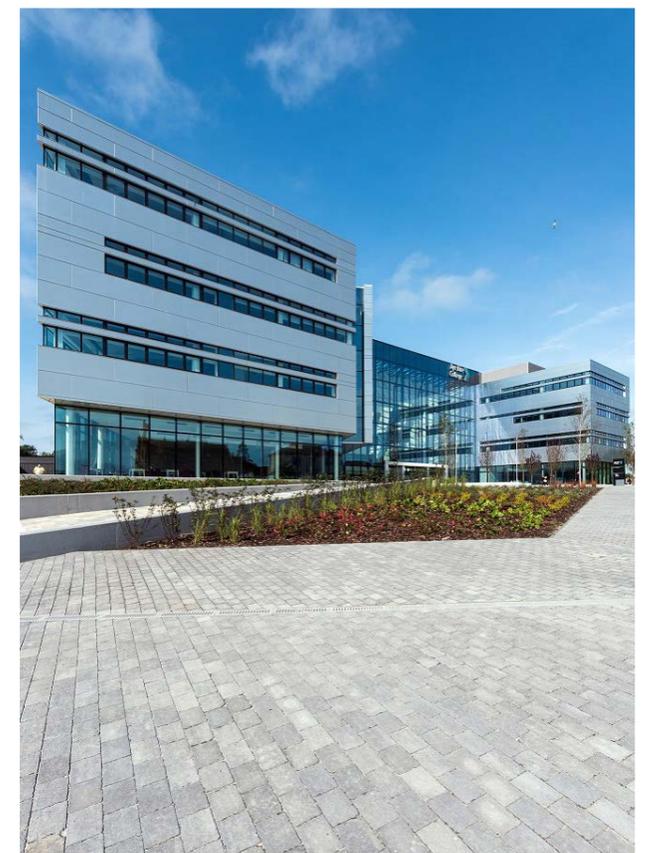
Both projects, designed in partnership with Michael Laird Architects and Reiach & Hall Architects are on a massive scale. Riverside Campus is spread over seven floors (70,000sqm) while the City Campus occupies ten floors (200,000 sqm) in the centre of Glasgow.

Ayrshire College Kilmarnock Campus

Ayrshire College (AC) was established in 2013, following the merger of the three leading colleges in Ayrshire – Kilmarnock College, Ayr College and the Kilwinning and Largs campuses of James Watt College. The new four-storey (19,255 sqm) campus at Kilmarnock designed by Keppie Architects opened in 2016 at a cost of £53m.

Inverness College

Inverness College University of the Highlands and Islands (UHI) is based in Inverness in the Highland Council area of Scotland and was opened in August 2015. The three-storey (19,500 sqm) building was designed by BDP architects and completed at a cost of £50m.



From top left: CGC's inspiring atrium space, AC's flexible 'Shopping Mall' atrium and upper floors (2), wooden seating at CGC. Images by Keith Hunter and Keppie.



"My vision for the Kilmarnock campus was to create a welcoming environment and one which could be adapted to meet future needs. On the ground floor I asked for a design similar to a shopping mall to enable students to develop their enterprise skills and support our partnership work with key stakeholders. In addition, I asked for the space to be flexible to allow a performance area to be created when required."

Heather Dunk OBE, Former Principal, Ayrshire College

Atrium & Circulation Spaces

According to Ryan Sylvester, Keppie Architects, who worked on AC "Learning can and should happen anywhere within the building." [3] This logic is most evident in the vast circulation spaces shown below.

Throughout, the projects examined the concept of a holistic learning environment. This can be seen in the treatment of atrium's, circulation spaces and outdoor environments, many of which are designed to support a mix of informal learning and social activity.

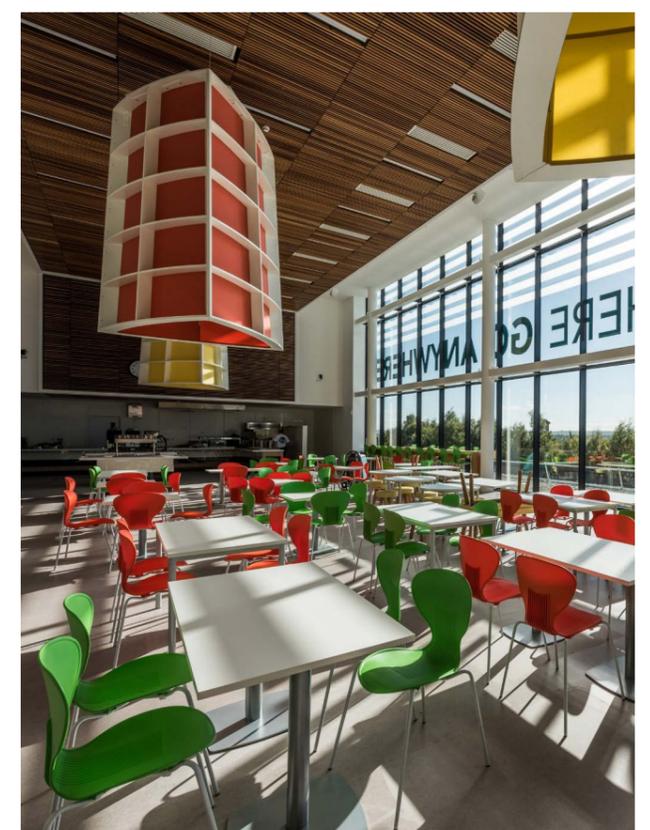
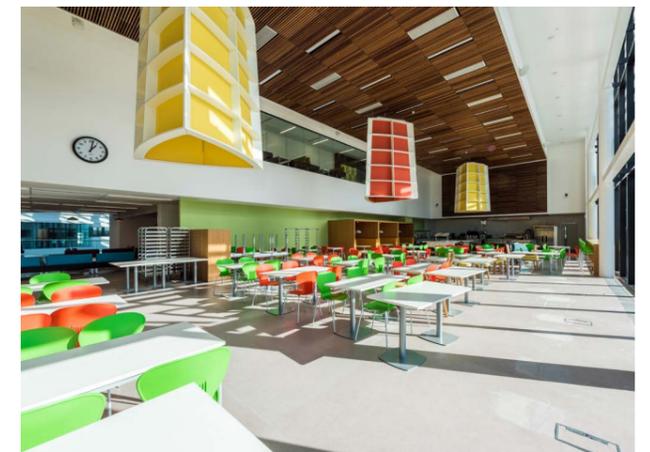
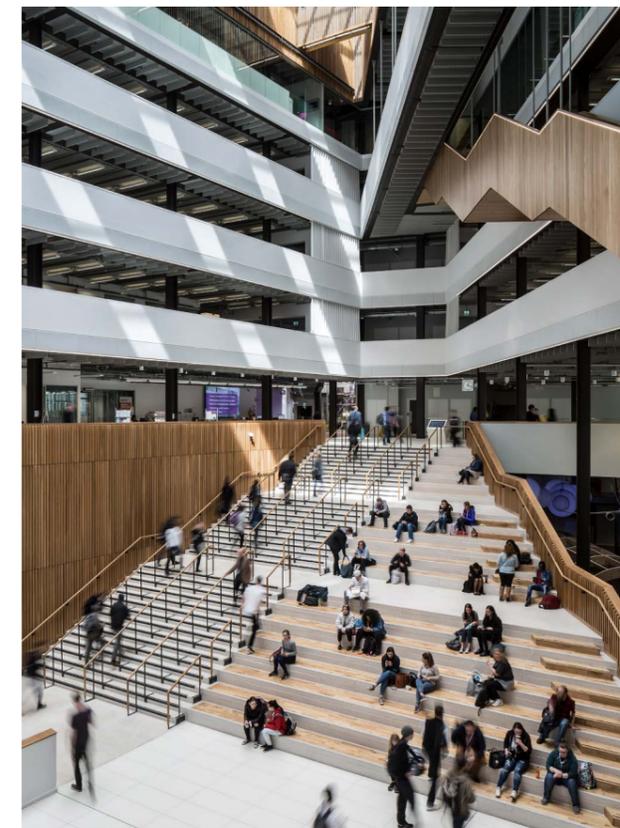
Atrium's are a useful architectural mechanism to help organise and connect, deliver light and space and provide a centre-place where students and visitors can orientate. However, beyond this, they have an even higher value in promoting a sense of community and potentially encouraging a degree of cross-disciplinary curiosity and discourse.

All of the projects feature atrium's or large volume entrance foyers and most act as an informal social learning space. However, by their nature, these spaces are 'in-between', neither social, teaching or service space but a combination of all. These multi-purpose in-between spaces provide a place where students can meet with each other or teaching staff either by design or by accident – where they can gather, where performances can be hosted and events held. In this sense, they are truly flexible spaces.

The atrium in AC was conceived initially by the client as a 'shopping mall' for services. A familiar, easily understood place where students could develop their enterprise skills connect with employers, perform and meet one another.

Taking a similar 'shopping mall' approach, but on a larger scale, the atrium at CGC City Campus is a place where the volume can inspire students, yet feel comfortable in a familiar environment that delivers spatial choices from big and bustling, to small and more intimate places.

In Rob Wilson's assessment of CGC for the Architects Journal, he noted that "the plans are organised round two city-scaled spaces, a courtyard and an atrium. They are convivial and shared social spaces that encourage students to mix and hopefully realise opportunities for a more blended way of learning." Similarly reflecting on the utility of the atrium space, Wilson notes' "The teaching spaces either look into the atrium, courtyard or a view across the city. The activities within the classrooms are visible from circulation routes, promoting a sense of a single community. Students are encouraged to investigate opportunities outside of their own discipline with the prospect of cross-discipline interaction and projects." [4]



From top left: UHI's triple height entrance foyer and flexible learning space. Wide circulation spaces at FVC provide informal social learning opportunities. Images by BDP and Keppie.



“It’s a wonderful new place to be. It’s airy, it’s light, it’s not like the old campus, it’s fabulous to be in and it’s got a great atmosphere and now that the students are back it’s an even better atmosphere, which is fantastic.”

Andrew Smirthwaite, Student President of Forth Valley Student Association, 2019-2021 (FVC).

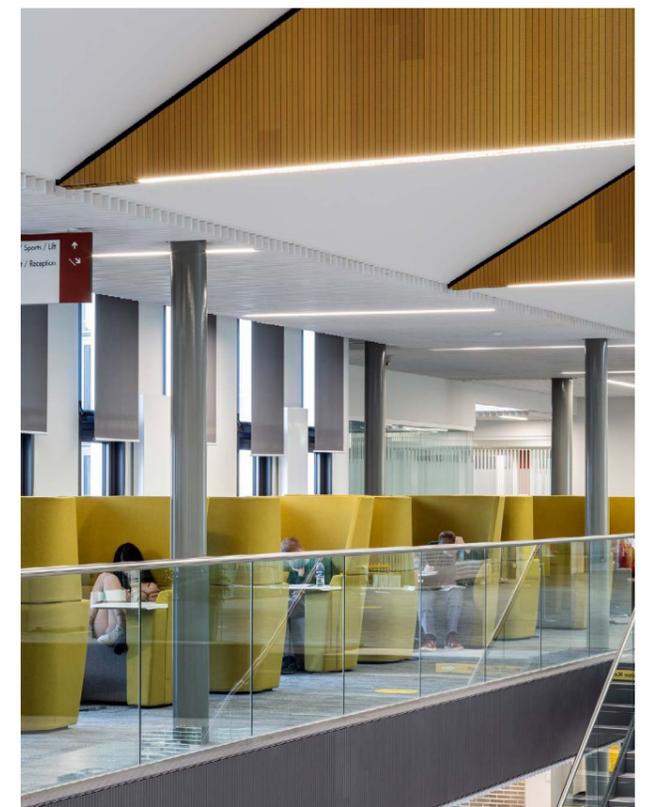
The triple-height entrance foyer at Inverness College, UHI provides an impressive entrance to the campus which acts as a gathering space and forum for activities. The building founded on the principles of shared, flexible learning and socialisation is designed as a journey through the common or in-between spaces.

Project architect for UHI, Scott Mackenzie notes how “you can rise up immediately through the height of the building and go to where you want to go, or you can take a more meandering route through the common spaces and meet and interact in a more chance way.” [5]

These in-between spaces are a mixture of foyers, pockets between teaching pods and the ample circulation space. Circulation space has been designed to support informal or social learning and is a valuable in-between place where students can meet each other or spend time between classes. If well considered, these places can encourage discourse between disciplines or provide useful opportunities for students and staff to interact post-class.

The circulation spaces in FVC have been widened to three meters to accommodate informal social learning. “The circulation becomes as important as the classroom spaces themselves.” According to Mark Dawson, FVC project architect [6]. FVC also features shared spaces adjacent to the more formal teaching space. These ‘Courtyard Connection Spaces’ are open to the primary circulation allowing individual and group informal study.

“The college included ten flexible break-out spaces around the campus. These have been furnished with individual and group working in mind and are available throughout the campus, including the workshop block. The success of these spaces has proven to be extremely positive with both staff and students... and function as study areas, breakout areas, meeting spaces and as spaces for collaboration.” [7]



Clockwise from top left: The flexible entrance area at FVC, AC's adaptable lecture theatre and stage in the atrium. Images by Keppie and Reich & Hall.



Flexibility

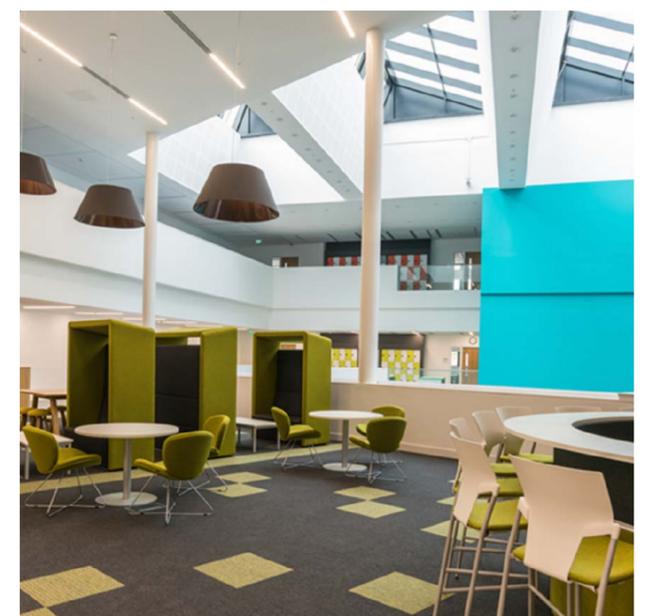
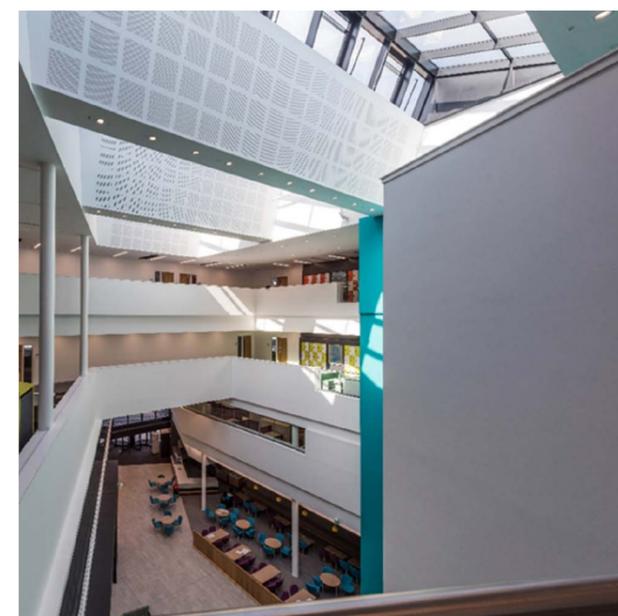
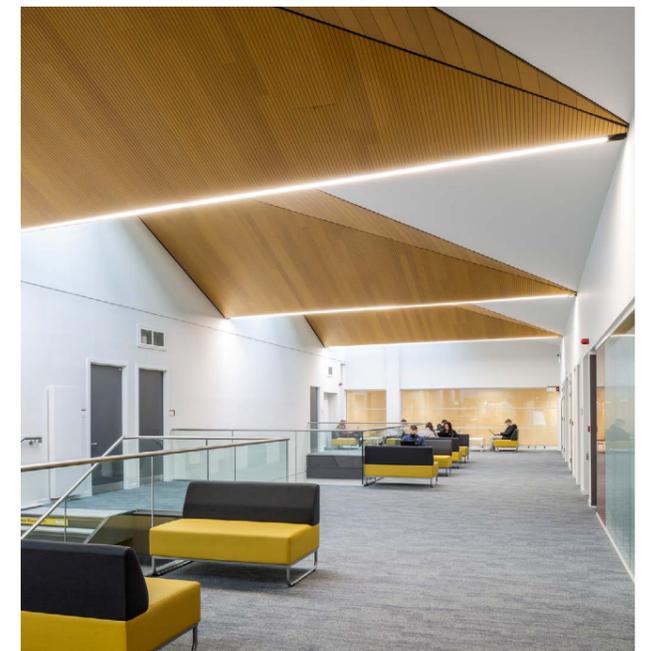
The concept of flexibility or adaptability is a common theme in education environments. Most often, this concept relates to social learning spaces that can be easily adapted to suit a range of group sizes or activities at different times or even to allow students the opportunity to customise the area to their needs.

In the projects examined, another, more practical type of in-between space was evident. These in-between areas maximise the potential of space, allowing it to perform multiple functions and providing places that can be used, daily, weekly or even seasonally in different ways for many purposes.

In the entrance space of FVC campus, flexible space is created using folding/relocatable doors forming; "a glazed wall that completely disappears — it all folds away." [8] This system can expand to provide the college with spaces of up to 620m² for large scale events such as enrolment, exams or performances, or shrink to areas of 80m² for teaching and learning. The result is a flexible, adaptable space that does not lie dormant for any part of the year.

"The space can be segregated into two for different functions or be completely opened up to allow a space for large events combined with the refectory space as a seamless design. This flexibility has provided the college with a multi-purpose space which can be easily reconfigured to meet demands." Mark Dawson, Reich & Hall [9]

A similar retracting acoustic glazed screen is installed in the AC atrium space, forming a large flexible lecture theatre "Being adaptable so that you can use the space in a lot of different ways is critical." [10]



The cloistered courtyard at the CGC riverside campus. Images by Keith Hunter.



Clockwise from left: CGC's Riverside enclosed courtyard, UHI's landscape encourages learning activities to 'spill' out of the building. Image by Keith Hunter and BDP.



Outdoor Spaces

Outdoor space can often be overlooked, especially in Scotland, where the weather is not ideal. However, visit any campus in the UK, and you will find people using the outdoor environment as a natural in-between space.

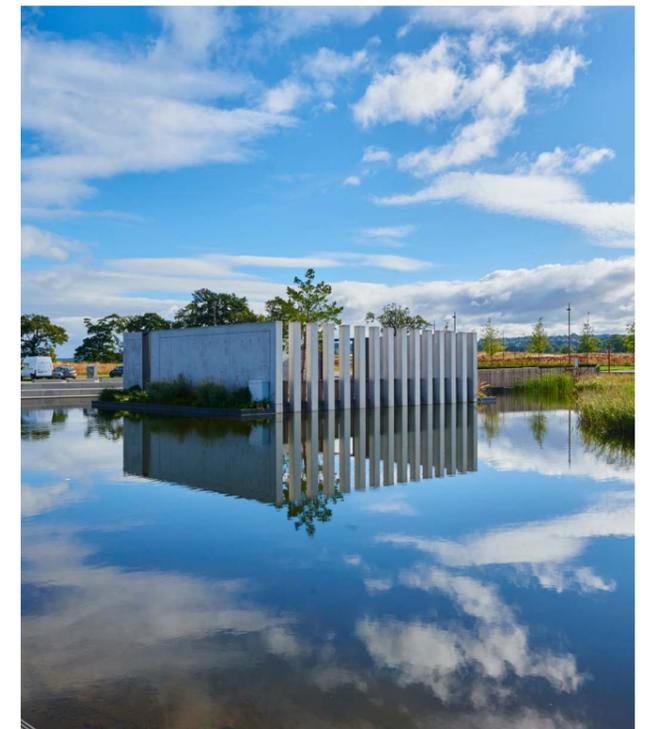
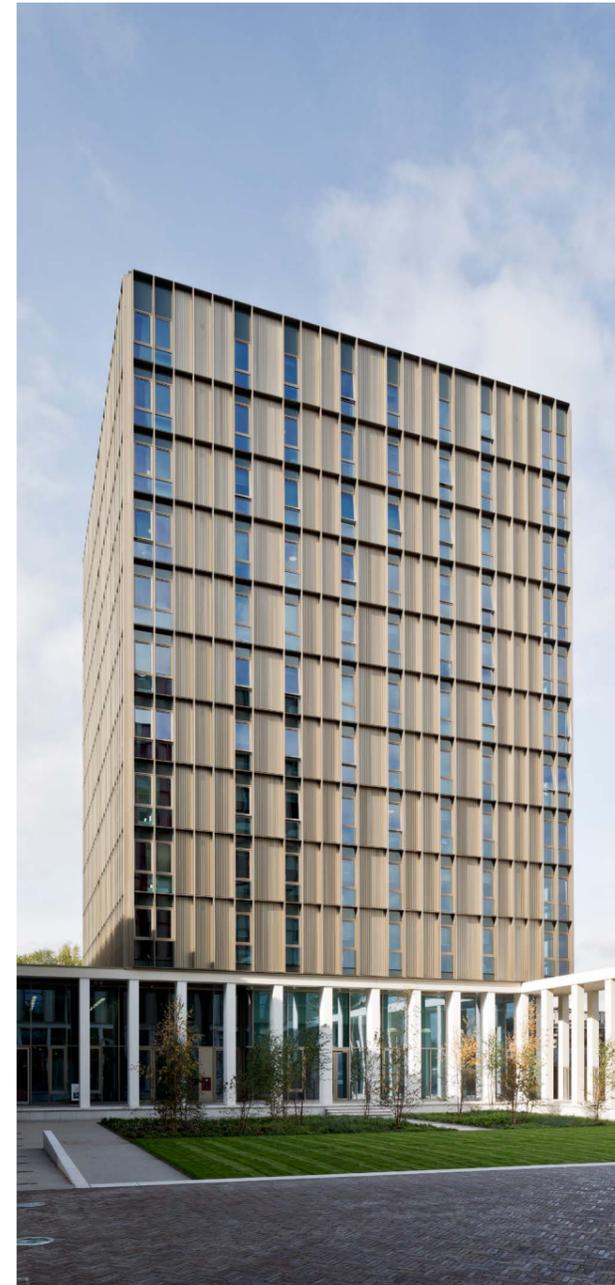
The landscape design at UHI, is an integral part of the overall campus concept. The landscape surrounding and leading up to the building incorporates a number of spaces designed to "encourage activities to spill out of the building, allowing the adoption of different teaching methods, enhancing well-being and connection to nature." [11]

The award-winning open air space, 'An t-Eilean', (the Island) is the highlight of the outdoor landscape, and a true in-between space that can be used for a wide variety of activities from performances, exhibitions, events, meetings and simple, quiet contemplation.

Outdoor space is also a focus at FVC with three internal courtyard spaces, one of which connects with the refectory offers staff and students opportunities for outdoor teaching, learning, quiet contemplation and even the chance to grow their own herbs and vegetables.

"The whole campus has been designed on a site which encourages cycling, walking and outdoor learning." [12]

Towards the rear of CGC Riverside Campus, an enclosed courtyard space is conceived as a protected 'cloistered' space providing sheltered areas for students to meet, relax and contemplate.



Cumnock Academy students won a design competition with a group of three seating pods for informal learning opportunities at AC. Images by Keppie.

The learning landscape at the City Campus of CGC. Images by Keith Hunter.

Unusual Places

Some in-between spaces are more uncommon than others. The cascading terrace of steps leading to the entrance of the City Campus of CGC are viewed as a vital part of the social and learning landscape of the campus.

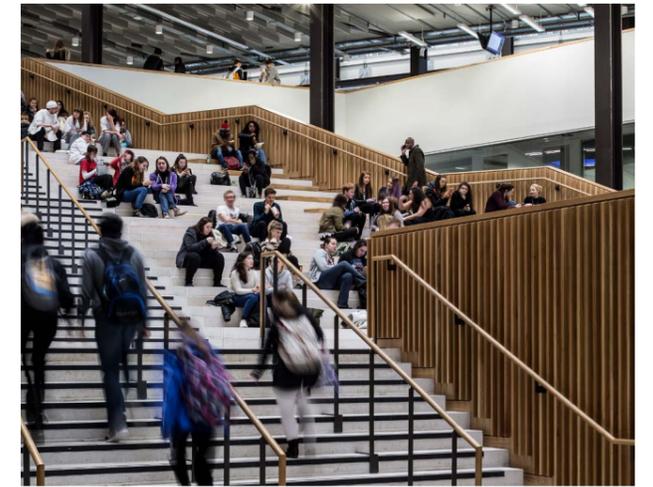
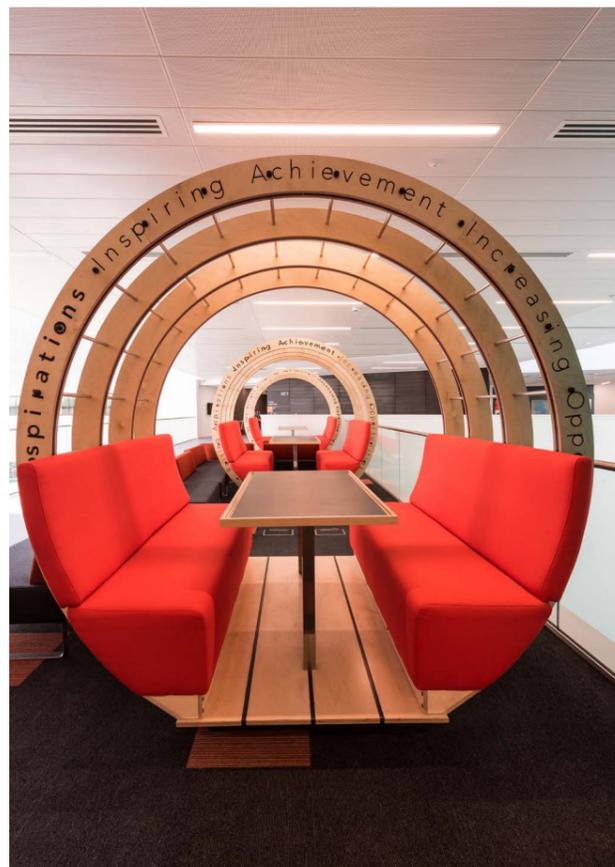
"I think the whole idea was that the wi-fi would reach into these spaces so you go out into this area as small student groups and work on projects where seating is provided. The whole stepped area is much grander, it's like the Spanish Steps." [13]

The steps inside CGC City Campus are just as important, if not more so. Designed to be as much sat on as walked on, the steps, which are a primary circulation route, are used for teaching seminar groups, events or simply as a place for friends to gather and meet.

As part of their consultation process for AC, the Keppie Architects ran a design competition titled, 'The In-Between Spaces.' Eight schools in the Ayrshire region, the future students of AC, were invited to take part and propose design solutions for a space overlooking the atrium on the top floor. The winning design by Cumnock Academy students is a group of three seating pods intended for informal social learning. These timber-framed pods feature tables with ridges and grooves that can support a range of devices such as iPads.

"It is all about getting the students to be involved in the design and also play a part in the college" [14]

Naturally, the pods were somewhat experimental, and just three were installed. However, these in-between pods have proven popular with staff and students, and a fourth pod has now been established within the atrium entrance area.



“The College mission – to prepare students for the world of work – is exemplified in the large, open volume that is central to the building’s identity and function. This welcoming, accessible space is where engagement with the public and the business community takes place. It is a vibrant, collaborative environment, where students enjoy direct interaction with employers and local people, developing their communication skills through a practice-based learning curriculum.”

Ryan Sylvester, Project Architect Ayrshire College Kilmarnock Campus – Keppie Architects

Conclusion

There is a natural overlap between social learning spaces and In-between places. In-between spaces provide opportunities for a passive form of social learning which supports the more active places such as the refectory or learning resource areas where students can find a broad range of choices.

Atrium’s and other large-volume spaces are multi-functioning in-between spaces where students can meet or gather and where performances can be hosted, events held, and in this sense, they are truly flexible spaces.

In-between spaces that can expand and shrink work well within these larger volumes and ensure that space is utilised efficiently. Deep circulation spaces, courtyards and outdoor spaces are further opportunities to enrich the student experience by providing valuable social, learning and contemplation space. The steps at CGC stairs demonstrate how circulation space can even be used as an informal seminars in the right circumstances. And importantly; involving students in the design of their in-between space can lead to exciting and innovative results.

References

This case study was conducted by Nomad RDC on behalf of Architecture and Design Scotland.

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- [7] Andrew Lawson, Depute Principal & Chief Operating Officer, Falkirk Valley College, interviewed [27/05/2020].
- [8] & [9] Mark Dawson, Project Architect FVC – Reiach & Hall Architects, interviewed [27/05/2020].
- [10] Ryan Sylvester, Project Architect - Ayrshire College Kilmarnock Campus – Keppie Architects, interviewed [12/05/2020].
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- [12] Andrew Lawson, Depute Principal and Chief Operating Officer, Falkirk Valley College, interviewed [27/05/2020].

[13] Brendan Diamond – Project Director, CGC – Michael Laird Architects, Interviewed [15/05/2020].

[14] Ryan Sylvester, Project Architect Ayrshire College Kilmarnock Campus – Keppie Architects, interviewed [12/05/2020].

With thanks to the following for their photography: BDP, Keith Hunter, Keppie and Reiach & Hall Architects.

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