

Allies and Morrison

How green are they?



What is GREEN Architecture?

Green architecture, or green design, is an approach to building that minimizes harmful effects on human health and the environment. The “green” architect or designer attempts to safeguard air, water, and earth by choosing eco-friendly building materials and construction practices.

- Jackie Craven, Architectural Writer

“Sustainable architecture can be characterized in two categories, instant “green” and long term sustainability. Instant green features are those that have little to no financial impact on the project where as, long term sustainability are permanent features designed into the project that will have some up-front cost, but better energy efficiency over the life cycle of the building.

Instant green includes: recycling, composting, compact florescent light bulbs, low mercury lamps, recycled/renewable materials for flooring, coutertops, allcovering etc., appliances (energy star or higher efficiency), low VOC paints and materials, and water conserving plumbing fixtures

Long term sustainability includes: building orientation, building shape, building zoning, passive heating and cooling strategies (correct amount of south facing windows to collect solar radiation in winter coupled with accurately sized overhangs for shading windows in the summer), utilizing prevailing wind direction, minimizing windows on north elevation to reduce heat loss, thermal collection and storage.”

- Architectural Design Group - Reno, Nevada

Projects under scrutiny:

1. Southwark Street Studio

- Extreme use of concrete
- Lack of site design

2. Bridge of Orchy Hotel

- Response to site
- Choice of material: zinc

3. Alila Calicut Luxury Holiday Resort

- Effective land use planning



1. Southwark Street

Location:

85 Southwark Street

SE1 0HX

London

United Kingdom

Use:

Office, Restaurant, Assembly

Area:

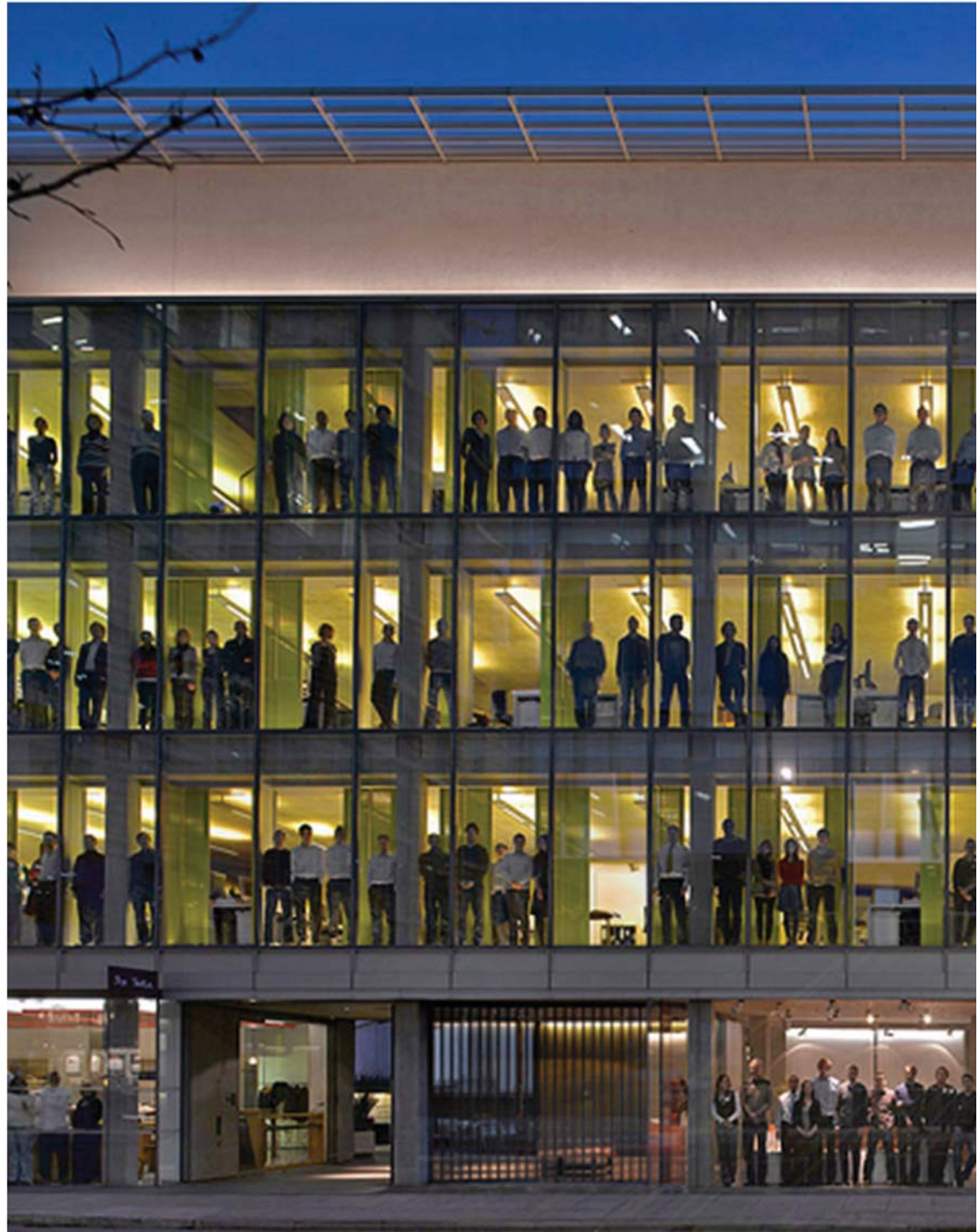
4 stories

Completion Date:

2003

Client:

Allies and Morrison



2. Facing Southwark Street

Sustainable characteristics:

- mixed use
- day lighting strategies
- shading devices...

Unsustainable characteristics:

- lack of connection to the street
- lack of landscaping features
- main material choice...

1. Visually there is no connection between the building facade and the sidewalk. There are no landscaped features, nothing that encourages the passer by to stop and linger, nothing to invite the passer by into the restaurant.

Instead it is plain. Trees are located on the other side of the street



3. Interior



4. Exterior, standing on Southwark

2. The interior of the building consists predominantly of concrete.

The effects of concrete:

- Takes minerals from the earth. Limestone blasted from quarry (to make cement - the binder)
- Limestone is then transported to cement plant
- Cement is made by mixing limestone and clay together and then grinding it up to make the powdered substance
- plant and machinery usage creates large CO2 emissions

(Is it Green?: Concrete)

Was concrete the best material to use as the major material choice?

2. Bridge of Orchy Hotel

Location:
Bridge of Orchy
Argyle, Scotland

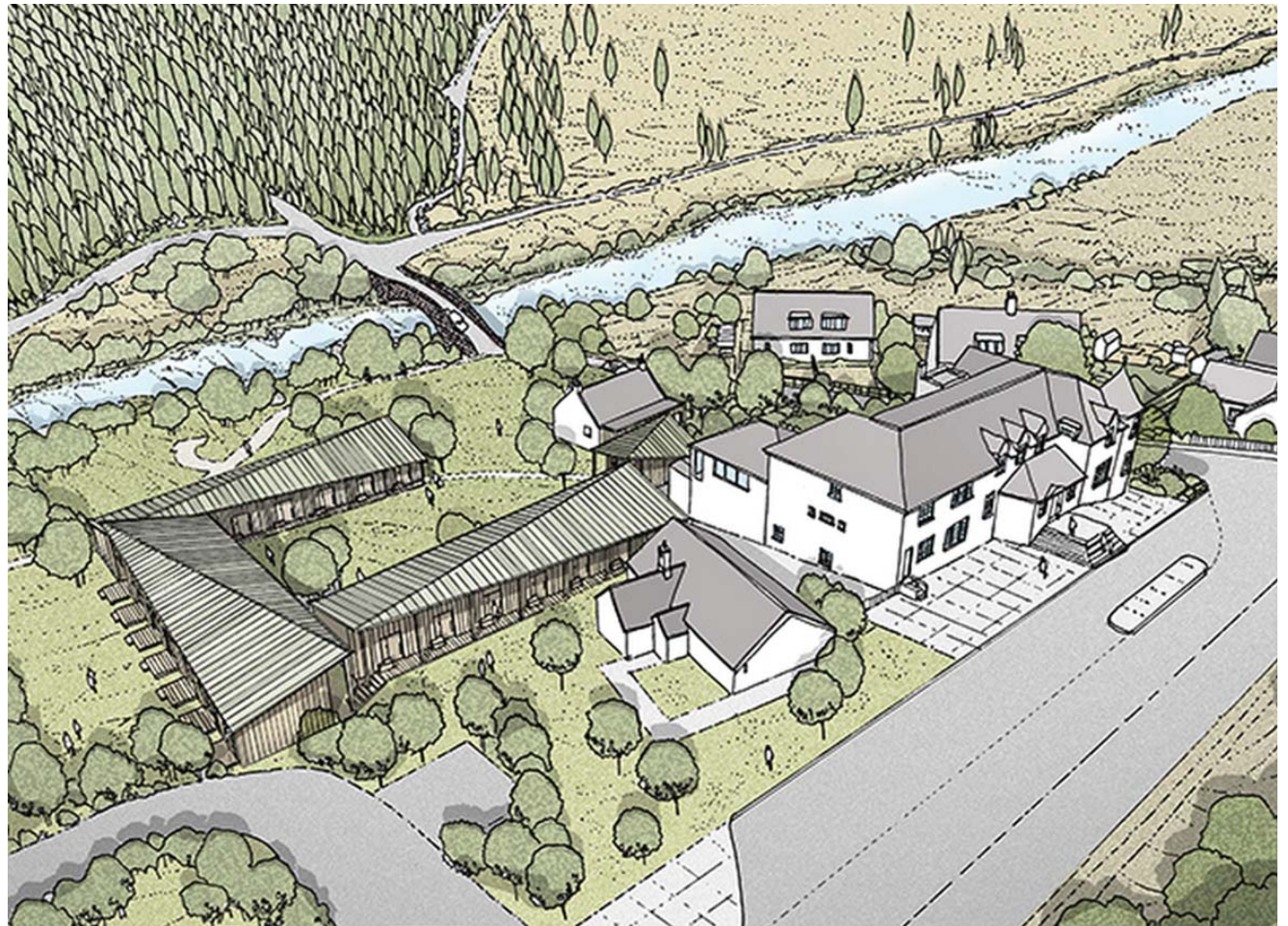
Use:
Hotel

Area:
1 story

Completion Date:
2012

Client:
Sandy Orr

Contract Value:
£1.2m (~\$1.8m)



5. Aerial view of Bridge of Orchy Hotel

Sustainable characteristics:

- historic preservation
- views and connection to nature...

Unsustainable characteristics:

- response to sites topography
- use of material: zinc...

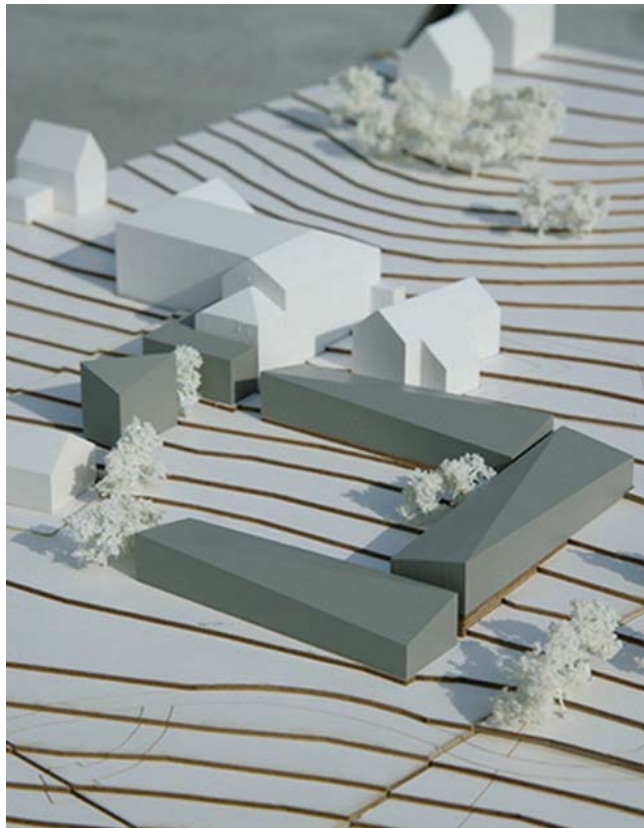
1. The configuration of the extension, 21 single story bedrooms, doesn't seem to fit in with the existing hotel in terms of architectural elements.

Also, Allies and Morrison said, "The rooms are positioned to follow the natural fall of the site." However as you can see there was some need for build up on the south side. The elevation difference disturbs the continuity between each section of the addition.

(Bridge of Orchy Hotel Argyle, Scotland)



6. Courtyard



7. Site model

2. The material used on the addition (to create the asymmetrical roof design) is zinc.

Concerns for using zinc:

- Scotland receives up to 6" of rain per month during the rainy season (Moscow gets 3")

(Argyll and Bute Weather)

- Concern of acid rain. Acid rain exists as a result of the atmosphere containing higher than normal amounts of nitric and sulfuric acids, specifically due to the emissions of **sulfur dioxide** (SO₂) and nitrogen oxides (NO_x)

(What Is Acid Rain?)

- During the zinc roasting method the primary pollution is **sulfur dioxide** emissions

(Primary Metals)

3. Alila Calicut Luxury Holiday Resort

Location:
Paruthipara
Kerala, India

Use:
Hotel/Resort

Area:
11.4 hectares (~28 acres)

Completion Date:
2011

Client:
UKn Properties Ltd



8. Rendered site plan

Sustainable characteristics:

- views and connection to nature
- modern design paying tribute to historical methods...

Unsustainable characteristics:

- questionable land use planning...

The Alila Calicut Resort is located in the State of Kerala, in the south-west region of India. The resort is situated on the banks of the Chaliyar River. The recent extension of the resort now includes 131 rooms and 27 villas.

The general form was inspired by the courtyard layouts of Indian temples and palaces.

(Allies and Morrison)



9. Large amounts of water could cause liquefaction



10. Seismic Zones

1. The location of the resort is questionable with regards to land use planning due to seismic activity in and around India.

Concerns of location:

- The State of Kerala is recognized as being in Seismic Zone III, where moderate earthquakes occur
- 2012 Earthquake on the coast of Indonesia created a tsunami warning for several areas of India

(Tsunami Warning in Andaman, Orissa, Kerala)

- These events cause for concern due to the destruction and a major earthquake, tsunami, and the cause of liquefaction could create to the dainty looking design.

Land use planning is an important factor of sustainable design!

Conclusion:

In today's design world, almost everyone is going to exhibit some form of "greenery." The argument comes into play when this question is asked: just how **green** are they? And could they be more conscious and/or consistent in this realm?

"Allies and Morrison brings to all its projects the same rigorous approach which places importance on the way buildings work, the way they are made, and the public spaces they generate."

(Allies and Morrison Architects)

*After researching Allies and Morrison Architects I would agree with this statement, however it does not say anything about how they, as a firm, actively seek to design sustainable environments.

"I don't think sustainability is a design aesthetic, any more than having electricity in your building, or telephones, or anything else. It's an ethic, a basic consideration that we have to have as architects designing buildings.in 10 years we're not going to talk about sustainability anymore, because it's going to be built into the core processes of architecture. Advertising sustainability, will be like an architect getting up in front of a room to proudly proclaim how his buildings didn't fall down."

- Robert Stern (University of Yale, Dean of Architecture)

WORKS CITED

WEB:

- "Architectural Record's Continuing Education Center | Earn AIA Continuing Education Credits Online." Architectural Record's Continuing Education Center | Earn AIA Continuing Education Credits Online. Architectural Record, July 2010. Web. 09 Apr. 2013. <<http://continuingeducation.construction.com/article.php?L=84>>.
- "Argyll and Bute Weather." - Argyll and Bute, Scotland Forecast. N.p., n.d. Web. 09 Apr. 2013. <<http://www.tripadvisor.com/Travel-g186497-s208/Argyll-And-Bute:United-Kingdom:Weather.And.When.To.Go.html>>.
- "Bridge of Orchy Hotel Argyle, Scotland." Allies & Morrison. N.p., n.d. Web. 09 Apr. 2013. <<http://www.alliesandmorrison.com/projects/chronology/2012/bridge-orchy-hotel/>>.
- "IS IT GREEN?: Concrete | Inhabitat - Sustainable Design Innovation, Eco Architecture, Green Building." Inhabitat Sustainable Design Innovation Eco Architecture Green Building IS IT GREEN Concrete Comments. N.p., n.d. Web. 08 Apr. 2013. <<http://inhabitat.com/is-it-green-concrete/>>.
- "Primary Metals." Zinc Processing. N.p., n.d. Web. 09 Apr. 2013. <http://www.wmrc.uiuc.edu/info/library_docs/manuals/primmetals/chapter7.htm>.
- "Quote of the Day: Robert Stern on When All Architecture Is Green Architecture." TreeHugger. N.p., n.d. Web. 08 Apr. 2013. <<http://www.treehugger.com/sustainable-product-design/quote-of-the-day-robert-stern-on-when-all-architecture-is-green-architecture.html>>.
- "Tsunami Warning in Andaman, Orissa, Kerala & Indian Ocean after Massive Earthquake in Indonesia." The Economic Times. N.p., n.d. Web. 10 Apr. 2013. <http://articles.economictimes.indiatimes.com/2012-04-11/news/31325213_1_tsunami-warning-wide-tsunami-indian-national-centre>.
- "What Is Acid Rain?" EPA. Environmental Protection Agency, n.d. Web. 09 Apr. 2013. <<http://www.epa.gov/acidrain/what/>>.

IMAGES:

1. http://www.bdonline.co.uk/pictures/458xAny/4/7/8/1583478_Graham_Morrison_for_web.jpg
2. <http://www.alliesandmorrison.com/practice/people/>
3. <http://www.alliesandmorrison.com/studio/>
4. <http://c532063.r63.cf3.rackcdn.com/image/group-32/319068/big/259-allies-and-morrison-studio-elevation.jpg>
5. <http://www.alliesandmorrison.com/projects/chronology/2012/bridge-orchy-hotel/>
6. <http://www.alliesandmorrison.com/projects/chronology/2012/bridge-orchy-hotel/>
7. <http://www.alliesandmorrison.com/projects/chronology/2012/bridge-orchy-hotel/>
8. <http://www.alliesandmorrison.com/projects/chronology/2011/alila-calicut/>
9. <http://www.alliesandmorrison.com/projects/chronology/2011/alila-calicut/>
10. http://4.bp.blogspot.com/-DIS2qF0Sb3A/Tp_edBCML0I/AAAAAAAAABg/cecVghEngkY/s1600/india-map-seismiczone.jpg

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