History and Theory Studies (HTS)

Technical Studies (TS)

Media Studies (MS)

Media Studies Lab Courses

Professional Practice (PP 3rd Year)

Architectural Professional Practice (APP 5th Year)

COMPLEMENTARY STUDIES COURSE BOOKLET
2014/2015
Submission Requirements and Hand-In Dates 2014/2015

**FIRST YEAR**

<table>
<thead>
<tr>
<th>History and Theory Studies</th>
<th>Essay 1</th>
<th>Friday 12th December 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essay 2</td>
<td></td>
<td>Friday 20th March 2015</td>
</tr>
<tr>
<td>Technical Studies</td>
<td>Integrated Design</td>
<td>Friday 12th December 2014</td>
</tr>
<tr>
<td></td>
<td>First Applications</td>
<td>Friday 20th March 2015</td>
</tr>
<tr>
<td>Media Studies</td>
<td>2 X Term 1 Courses</td>
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<tr>
<td></td>
<td>2 X Term 2 Courses</td>
<td>Bound submission of 4 Courses</td>
</tr>
</tbody>
</table>

ALL submissions must be completed AND passed before Entry to the 2nd Year

**SECOND YEAR**

<table>
<thead>
<tr>
<th>History and Theory Studies</th>
<th>Essay 1</th>
<th>Friday 12th December 2014</th>
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</thead>
<tbody>
<tr>
<td>Essay 2</td>
<td></td>
<td>Friday 20th March 2015</td>
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<tr>
<td>Technical Studies</td>
<td>Structures</td>
<td>Friday 12th December 2014</td>
</tr>
<tr>
<td></td>
<td>Materials</td>
<td>by Class Jury on Thursday 29th January 2015</td>
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<tr>
<td></td>
<td>Environmental</td>
<td>Friday 20th March 2015</td>
</tr>
<tr>
<td>Media Studies</td>
<td>1 X Term 1 Course</td>
<td>Bound submission of 1 Course</td>
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<tr>
<td></td>
<td>1 X Term 2 Course</td>
<td>Bound submission of 1 Course</td>
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</table>

ALL submissions must be completed AND passed before Entry to the 3rd Year

**THIRD YEAR**

<table>
<thead>
<tr>
<th>History and Theory Studies</th>
<th>Essay 1</th>
<th>Friday 12th December 2014</th>
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</thead>
<tbody>
<tr>
<td>Essay 2</td>
<td></td>
<td>Friday 20th March 2015</td>
</tr>
<tr>
<td>Technical Studies</td>
<td>Structures</td>
<td>Friday 12th December 2014</td>
</tr>
<tr>
<td>TS3 Design Project Option 1/Early TS</td>
<td>Interim Jury</td>
<td>16th to 20th February 2015</td>
</tr>
<tr>
<td>TS3 Design Project Option 1</td>
<td>Final Submission</td>
<td>Friday 13th March 2015</td>
</tr>
<tr>
<td>TS3 Design Project Option 2/Late TS</td>
<td>Interim Jury</td>
<td>9th to 13th March 2015</td>
</tr>
<tr>
<td>TS3 Design Project Option 2</td>
<td>Final Submission</td>
<td>Monday 27th April 2015</td>
</tr>
<tr>
<td>Professional Practice</td>
<td>Class presentation</td>
<td>Wednesday 26th November 2014</td>
</tr>
<tr>
<td></td>
<td>Write Up</td>
<td>Friday 12th December 2014</td>
</tr>
</tbody>
</table>

ALL submissions must be completed AND passed before submitting for AA Intermediate (RIBA/ARB) Part 1/Entry to the 4th Year

**FOURTH YEAR**

<table>
<thead>
<tr>
<th>History and Theory Studies</th>
<th>2 Course Papers</th>
<th>Friday 12th December 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Studies</td>
<td>2 Course Papers</td>
<td>Monday 23rd March 2015</td>
</tr>
</tbody>
</table>

ALL submissions must be completed AND passed before Entry to the 5th Year

**FIFTH YEAR**

<table>
<thead>
<tr>
<th>History and Theory Studies</th>
<th>1 Course Paper/Thesis</th>
<th>Friday 12th December 2014</th>
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</thead>
<tbody>
<tr>
<td>Technical Studies</td>
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</tr>
<tr>
<td>TS5 Design Thesis Option 1/Early TS</td>
<td>Interim Jury</td>
<td>16th to 20th February 2015</td>
</tr>
<tr>
<td>TS5 Design Thesis Option 1</td>
<td>Final Submission</td>
<td>Friday 13th March 2015</td>
</tr>
<tr>
<td>TS5 Design Thesis Option 2/Late TS</td>
<td>Interim Jury</td>
<td>9th to 13th March 2015</td>
</tr>
<tr>
<td>TS5 Design Thesis Option 2</td>
<td>Final Submission</td>
<td>Monday 27th April 2015</td>
</tr>
<tr>
<td>Architectural Professional Practice</td>
<td>Course Paper</td>
<td>Friday 12th December 2014</td>
</tr>
</tbody>
</table>

ALL submissions must be completed AND passed before submitting for AA DIPLOMA (RIBA/ARB) Part 2
2014/2015 Academic Calendar

TERM DATES

Monday 22nd September to Friday 26th September 2014: Introduction Week for new students
Thursday 25th September 2014: Academic Staff Induction Day (All teaching staff)

TERM 1 (AUTUMN)
Monday 29th September to Friday 19th December 2014  (12 Weeks)
* Student Vacation: Saturday 20th December to Sunday 11th January inclusive
* AA Premises Closed: Saturday 20th December to Sunday 4th January inclusive

TERM 2 (WINTER)
Monday 12th January to Friday 27th March 2015   (11 Weeks)
* Student Vacation: Saturday 28th March to Sunday 26th April inclusive
* AA Premises Closed: Friday 3rd April to Tuesday 21st April inclusive
* Good Friday: 3rd April
* Easter Monday: 6th April

TERM 3 (SPRING)
Monday 27th April to Friday 26thJune 2015    (9 Weeks)
* Bank Holiday: Monday 4th May (Week 2)
* Bank Holiday: Monday 25th May (Week 5)

TERM 4 (SUMMER) (Graduate School MA/MSc Dissertation Term)
Monday 29th June to Friday 25th September 2015          (13 Weeks)
* AA Premises Closed: Saturday 22nd to Monday 31st August inclusive
* Bank Holiday: Monday 31st August

Please visit http://www.aaschool.ac.uk/calendar
The full calendar is a downloadable PDF and you can subscribe to the live digital format.
Introduction Week 2014
Monday 22nd September
Orientation for NEW students
Tuesday 23rd September
Registration for NEW students
September Reviews (Intermediate)
History and Critical Thinking MA Final Presentation
Wednesday 24th September
September Reviews (Diploma)
Thursday 25th September
Induction/Introduction and Welcome to the Year:
ALL ACADEMIC STAFF
Friday 26th September
Delivery of Undergraduate Programme Guide (on-line)
Picnic for NEW students

Term 1 (12 Weeks) AUTUMN
Monday 29th September 2014 to Friday 19th December 2014

Term 1 WEEK 1
Monday 29th September
Registration RETURNING students
10.00am: Diploma Unit Introductions
6.00pm: Diploma Staff/Students meet informally
Tuesday 30th September
Registration RETURNING students
10.00am: Intermediate Unit Introductions
(11.30am: Diploma Unit Interviews commence)
6.00pm: Intermediate Staff/Students meet informally
Wednesday 1st October
Registration RETURNING students
(10.00am Diploma Unit Interviews continue)
(11.30am: Intermediate Unit Interviews commence)
12.30pm: Graduate School Programme Introductions
6.00pm: Graduate School Staff/Students meet informally
Thursday 2nd October
2.00pm: Diploma Staff Meeting
3.30pm: Intermediate Staff Meeting
Friday 3rd October
Complementary Courses – Introductions/Registration:
10.00am: History and Theory Studies 4th / 5th Year
11.30am: Technical Studies 5th Year (4th Year in Term 2)
12.30pm: Media Studies 1st Year
1.00pm: Architectural Professional Practice 5th Year
2.00pm: Technical Studies 2nd / 3rd Year
3.00pm: History and Theory Studies 2nd / 3rd Year
4.00pm: Media Studies 2nd Year (inclusive of MS Lab Courses)
(On-line Registration for HTS 4th / 5th Year at 2.00pm on Friday 3rd October)

Term 1 WEEK 2
Monday 6th October to Friday 10th October 2014
Term 1 Undergraduate Complementary Studies commence:
As per timetabled slots:
HTS 4th / 5th Year (1 of 7)
Tuesday 7th October
HTS 1st Year (am: 1 of 7)
MS 1st Year (pm: 1 of 8)
Wednesday 8th October
MS 2nd Year (am and pm: 1 of 8)
PP/3rd Year and APP 5th Year (5.00pm: 1 of 7)
Thursday 9th October
TS 1st Year (am and pm: 1 of 7)
HTS 2nd / 3rd Year (am: 1 of 7)
TS 2nd / 3rd Year (pm: 1 of 7)
Saturday 11th October
Autumn Part III Written Exam
Term 1 WEEK 3

Monday 13th October to Friday 17th October 2014
Undergraduate Complementary Studies continue (2 of 7)

Term 1 WEEK 4

Monday 20th October to Friday 24th October 2014
Undergraduate Complementary Studies continue (3 of 7)
Foundation/First Year Student Meeting with Brett Steele
Intermediate/Diploma Student Meeting with Brett Steele
Graduate Student Meeting with Brett Steele

Monday 20th October
Foundation/First Year Student Meeting with Brett Steele

Tuesday 21st October
Intermediate/Diploma Student Meeting with Brett Steele

Wednesday 22nd October
Graduate Student Meeting with Brett Steele

Term 1 WEEK 5

Monday 27th October to Friday 31st October 2014
Undergraduate Complementary Studies continue (4 of 7)
MA/MSc/MPhil/Graduate Diploma Exam Board
Submission of ARB Annual Monitoring Report
Foundation/First Year Open Day and ‘Application’ Workshop

Monday 27th October
MA/MSc/MPhil/Graduate Diploma Exam Board

Friday 31st October
Submission of ARB Annual Monitoring Report

Friday 31st October
Foundation/First Year Open Day and ‘Application’ Workshop

Term 1 WEEK 6

Monday 3rd November to Friday 7th November 2014
OPEN WEEK – All Undergraduate & Graduate Seminars Suspended

Monday 3rd November
Autumn Part III Oral Exam

Thursday 6th November
GRADUATE OPEN JURY / GRADUATE OPEN DAY

Friday 7th November
UNDERGRADUATE OPEN JURY / UNDERGRADUATE OPEN DAY

Term 1 WEEK 7

Monday 10th November to Friday 14th November 2014
Undergraduate Complementary Studies resume (5 of 7)
Technical Studies 4th Year Introductions/Registration

1.00pm Thursday 13th November
Technical Studies 4th Year Introductions/Registration

Term 1 WEEK 8

Monday 17th November to Friday 21st November 2014
Undergraduate Complementary Studies continue (6 of 7)
Closing Date: Undergraduate Early Applications

Friday 21st November
Closing Date: Undergraduate Early Applications

Term 1 WEEK 9

Monday 24th November to Friday 28th November 2014
Undergraduate Complementary Studies conclude (7 of 7)
Closing Date: Graduate Optional Early Offer Applications

Friday 28th November
Closing Date: Graduate Optional Early Offer Applications

Term 1 WEEK 10

Monday 1st December to Friday 5th December 2014
MS 1st / 2nd Year concludes (8 of 8)

Term 1 WEEK 11

Monday 8th December to Friday 12th December 2014
By 1.00pm Friday 12th December
Term 1 Undergraduate Submission Hand-In – all Years

Term 1 WEEK 12

Monday 15th December to Friday 19th December 2014
End of Term Juries
Christmas Party / End of Term 1

Friday 19th December
Christmas Party / End of Term 1

Student Holiday: Saturday 20th December 2014 to Sunday 11th January 2015 inclusive
AA Premises closed (actual): Saturday 20th December 2014 to Sunday 4th January 2015 inclusive
AA Premises re-open: Monday 5th January 2015
Term 2 (11 Weeks) WINTER
Monday 12th January 2015 to Friday 27th March 2015

Pre start of Term: Monday 5th January
Undergraduate Term 2 Tuition Fee due

Term 2 WEEK 1

Monday 12th January to Friday 16th January 2015
Term 2 Student Registration
Progress Reviews
Return of Term 1 Complementary Studies Feedback
Term 2 Undergraduate Complementary Studies commence:
As per timetabled slots
Tuesday 13th January
HTS 1st Year (am: 1 of 7)
MS 1st Year (pm: 1 of 8)
Wednesday 14th January
MS 2nd Year (am and pm: 1 of 8)
Thursday 15th January
TS 1st Year (am and pm: 1 of 7)
HTS 2nd / 3rd Year (am: 1 of 7)
TS 2nd / 3rd Year (pm)

Monday 12th January Friday 24th April
Spring Term Semester Abroad (15 Weeks)
Sat 17th January to Sat 28th March
Spring Part III Seminar Series

Term 2 WEEK 2

Monday 19th to Friday 23rd January 2015
Undergraduate Complementary Studies continue (2 of 7)

Monday 19th January
MArch Phase II Jury Week:

Monday 19th January
Housing & Urbanism Final Jury

Tuesday 20th January
Sustainable Environmental Design Final Jury

Wednesday 21st January
Emergent Technologies and Design Final Jury
Design & Make Final Jury

Thursday 22nd / Friday 23rd January
Architecture and Urbanism (DRL) Final Jury

Friday 23rd January
GRADUATE SCHOOL OPEN DAY (AM)
UNDERGRADUATE SCHOOL OPEN DAY (PM)

Term 2 WEEK 3

1.00pm Friday 30th January
Friday 30th January
History and Theory Studies 4th Year Thesis Registration
Closing Date: Graduate Early Applications
Closing Date: Undergraduate Late Applications

Term 2 WEEK 4

Monday 2nd February to Friday 6th February 2015
Undergraduate Complementary Studies continue (4 of 7)

Friday 6th February
MArch Final Submission

Term 2 WEEK 5

OPEN WEEK – All Graduate & Undergraduate Seminars Suspended
Monday 9th February to Friday 13th February 2015
RIBA VALIDATION VISIT
OPEN JURY

Term 2 WEEK 6

Monday 16th February to Friday 20th February 2015
Undergraduate Complementary Studies resume (5 of 7)
TS Option 1 Timeline: TS3/TSS Interim Juries
Term 2 WEEK 7
Monday 23rd February to Friday 27th February 2015
Undergraduate Complementary Studies continue (6 of 7)

Term 2 WEEK 8
Monday 2nd March to Friday 6th March 2015
Undergraduate Complementary Studies conclude (7 of 7)
MArch Exam Board

Friday 6th March

Term 2 WEEK 9
Monday 9th March to Friday 13th March 2015
MS 1st / 2nd Year concludes (8 of 8)
1st Year Previews
TS Option 2 Timeline: TS3/TS5 Interim Juries
TS Option 1 Timeline: TS3/TS5 Final Submission
Closing Date: Graduate Late Applications

Wednesday 11th March

Friday 13th March

Friday 13th March

Term 2 WEEK 10
Monday 16th March to Friday 20th March 2015
4th Year Previews
ARC Review Visit
Term 2 Undergraduate Submission Hand-In: 1st and 2nd Year

Monday 16th / Tuesday 17th March

Tuesday 17th March

By 1.00pm Friday 20th March

Term 2 WEEK 11
Monday 23rd March to Friday 27th March 2015
Term 2 Undergraduate Submission Hand-In: 4th Year
Intermediate Previews for 3rd Year/Part 1
Diploma Previews for 5th Year/Part 2
Easter Party / End of Term 2
Term 2 Undergraduate Submission Hand-In: 3rd Year

By 1.00pm Monday 23rd March

Monday 23rd /Tuesday 24th March

Wednesday 25th /Thursday 26th March

Friday 27th March

By 1.00pm Monday 30th March*
* After conclusion of Term 2

Student Vacation: Saturday 28th March 2015 to Sunday 26th April 2015 inclusive
AA Premises closed (actual): Friday 3rd April 2015 to Tuesday 21st April 2015 inclusive
(Good Friday: Friday 3rd April 2015)
(Easter Monday: Monday 6th April 2015)
AA Premises re-open: Wednesday 22nd April 2015
<table>
<thead>
<tr>
<th>Term 3 (9 Weeks) SPRING</th>
<th>Monday 27th April 2015 to Friday 26th June 2015</th>
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<tbody>
<tr>
<td>Pre start of Term: Wednesday 22nd April</td>
<td>Undergraduate Term 3 Tuition Fee due</td>
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<tr>
<td>Pre start of Term: Friday 24th April</td>
<td>Conservation of Historic Buildings Final Submission</td>
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<tr>
<td>Pre start of Term: Saturday 25th April</td>
<td>Spring Part III Written Exam</td>
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<td><strong>Term 3 WEEK 1</strong></td>
<td><strong>Monday 27th April to Friday 1st May 2015</strong></td>
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<td>Term 3 Student Registration</td>
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<td>Return of Term 2 Complementary Studies Feedback</td>
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<td>By 1.00pm Monday 27th April</td>
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<td></td>
<td>TS Option 2 Timeline: TS3/TS5 Final Submission</td>
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<tr>
<td><strong>Term 3 WEEK 2</strong></td>
<td><strong>Monday 11th May to Friday 15th May 2015</strong></td>
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<td>Monday 4th May</td>
<td>Bank Holiday – AA Premises Closed</td>
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<td>Wednesday 6th May</td>
<td>AA HTS and Sharp Writing Prize</td>
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<td>Thursday 7th May</td>
<td>TS3/TS5 High Pass Panel</td>
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<td>Friday 8th May</td>
<td>TS3/TS5 High Pass Exhibition</td>
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<td><strong>Term 3 WEEK 3</strong></td>
<td><strong>Monday 18th May to Friday 22nd May 2015</strong></td>
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<td>Monday 18th May</td>
<td>Spring Part III Oral Exam</td>
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<td>Undergraduate School Jury Fortnight:</td>
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<td>(Week 1 / showcasing 3 juries per day)</td>
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<tr>
<td><strong>Term 3 WEEK 5</strong></td>
<td><strong>Tuesday 26th May to Friday 29th May 2015 (Note: Bank Holiday)</strong></td>
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<tr>
<td>Monday 25th May</td>
<td>Bank Holiday – AA Premises Closed</td>
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<td></td>
<td>Undergraduate School Jury Fortnight:</td>
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<td>(Week 2 / showcasing 3 juries per day)</td>
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<tr>
<td>Friday 29th May</td>
<td>MPhil in Architecture (Projective Cities) Phase II Final Jury</td>
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<tr>
<td><strong>Term 3 Week 6</strong></td>
<td><strong>Monday 1st June to Friday 5th June 2015</strong></td>
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<td><strong>Term 3 WEEK 7</strong></td>
<td><strong>Monday 8th June to Friday 12th June 2015</strong></td>
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<tr>
<td>Monday 8th June</td>
<td>2nd Year End of Year Reviews</td>
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<tr>
<td>Tuesday 9th / Wednesday 10th June</td>
<td>4th Year End of Year Reviews</td>
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<tr>
<td>Wednesday 10th June</td>
<td>Foundation End of Year Reviews</td>
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<tr>
<td>Thursday 11th / Friday 12th June</td>
<td>1st Year End of Year Reviews</td>
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<tr>
<td><strong>Term 3 WEEK 8</strong></td>
<td><strong>Monday 15th June to Friday 19th June 2015</strong></td>
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<td>Monday 15th /Tuesday 16th June</td>
<td>Intermediate (Part 1) Final Check</td>
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<tr>
<td>Wednesday 17th /Thursday 18th June</td>
<td>Diploma Committee</td>
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<tr>
<td>Friday 19th June</td>
<td>2.00pm: Diploma Honours Presentations</td>
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<td>4.30pm: Diploma Staff Meeting</td>
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<td></td>
<td>MA History and Critical Thinking Reviews</td>
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<td>MA Landscape Urbanism Jury</td>
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<td>MArch Architecture and Urbanism (DRL) Jury</td>
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<td>AAIS Final Jury</td>
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<td></td>
<td>MPhil in Architecture (Projective Cities) Phase 1 Final Jury</td>
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<tr>
<td></td>
<td>MPhil in Architecture (Projective Cities) Phase II Final Submission</td>
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</tbody>
</table>
Term 3 WEEK 9
Monday 22nd June
AA Prizes (for prizes awarded by jury/panel)
Tuesday 23rd June
External Examiners: AA Intermediate Examination / (ARB/RIBA Part 1)
Wednesday 24th June
External Examiners: AA Final Examination / (ARB/RIBA Part 2)
Friday 26th June
Graduation Awards Ceremony
Opening of End of Year Exhibition

Summer 2015
Summer WEEK 1
Monday 29th June
1st Year Final Check Reviews
Monday 29th June to Friday 10th July
Visiting School: Workshop 1

Summer WEEK 2
Monday 6th July to Friday 10th July
Visiting School: Summer School

Summer WEEK 3
Monday 13th July to Friday 17th July 2015

Summer WEEK 4
Monday 20th – Friday 24th July 2015

Summer WEEK 5
Monday 27th July to Friday 1st August
Visiting School: Workshop 2 (Visioning Architecture)
Monday 27th July to Friday 14th August
Visiting School: Summer D_LAB

Summer WEEK 6
Tuesday 4th / Wednesday 5th August
SED MSc Final Jury

Summer WEEK 7
Monday 10th August – Friday 14th August 2015

Summer WEEK 8
Monday 17th August – Friday 21st August 2015

Summer WEEK 9 / AA Premises Closed: Saturday 22nd August to Monday 31st August inclusive

Summer WEEK 10
Tuesday 1st September– Friday 4th September 2015
Unit Year-long Briefs, Programme Guides, Complementary Studies Syllabuses due
Friday 4th September
Emergent Technologies Design MSc Final Jury
Landscape Urbanism MA Final Jury

Summer WEEK 11
Monday 7th September – Friday 11th September 2015
Autumn Part III Seminar Series
Autumn Term Semester Abroad (15 Weeks)

Summer WEEK 12
Monday 14th September – Friday 18th September 2015
Undergraduate Term 1 Tuition Fee due
All Undergraduate ‘Tutor Checks’ due
Penn Visiting Student Programme (14 Weeks)
AAIS Grad Dipl Final Jury
MA/MSc/Post Graduate Diploma Final Submission

Summer WEEK 13/Introduction Week 2015-2016:
Monday 21st September – Friday 25th September 2015
For Advance Planning:
2015 – 2016 TERM DATES

Monday 21st September to Friday 25th September 2015: Introduction Week for new students
Thursday 24th September 2015: Academic Staff Induction Day (All teaching staff)

Term 1: 2015
Monday 28th September – Friday 18th December 2015 (12 Weeks)
* Student Vacation: Saturday 19th December to Sunday 10th January inclusive
* AA Premises Closed: Saturday 19th December to Sunday 3rd January inclusive

Term 2: 2016
Monday 11th January – Thursday 24th March 2016 (11 Weeks)
* Student Vacation: Friday 25th March to Sunday 24th April inclusive
* AA Premises Closed: Friday 25th March to Tuesday 12th April inclusive
* Good Friday: 25th March
* Easter Monday: 28th March

Term 3: 2016
Monday 25th April – Friday 24th June 2016 (9 Weeks)
* Bank Holiday: Monday 2nd May (Week 2)
* Bank Holiday: Monday 30th May (Week 6)

Term 4: 2016 (Graduate School MA/MSc students only)
Monday 27th June – Friday 23rd September 2016 (13 Weeks)
* AA Premises Closed: Saturday 20th to Monday 29th August inclusive
* Bank Holiday: Monday 29th August
These notes are designed to help students understand the importance of writing during their training at the AA, to understand the nature of an essay, and to provide advice on how best to prepare to write an essay, and how to plan it. It may be that some lucky individual students already possess a proven way of doing this and if this is the case then they can continue with their method and the habits that suit them. But experience teaches us that very few students have thought about the issue carefully and have developed a successful solution to the problems involved. Hopefully this guide will help them to approach the question in an intelligent way.

Architecture and writing

Often students take a negative view of the role of essay writing in their work as students at the AA. I have often heard it said that students feel that their ‘real’ work as students is design and learning to design. In this sense students often experience the obligation to write essays as a rather unwelcome supplement, as if essay writing is an onerous diversion from their real work. And so the first issue to be addressed is why essay writing is a vital part of a student’s work. Firstly, essay writing is central to the overall objective of enabling a student over a five year period, to develop an individual identity not just through their design work but through the capacity to articulate an independent and critical intelligence in respect to architecture. At the end of five years students should know what they think and should be able to justify that in terms of argument. One of the central functions of writing essays is to develop a skill in argument, which is the student’s own argument. This skill determines their capacity to explain and justify their own design work and to assess the designs of others. These are skills, they can be learned and the best way to learn them is to practice them. The second point which needs to be made is that professionally speaking, arguing in both speech and in writing is a fundamental dimension of the work of an architect and someone who lacks the skills will soon find themselves severely disadvantaged in practice. To this should also be added the general point that architects need to be able to describe architecture and architectural projects in words whether written or spoken. But the verbal description of architecture is a complex skill. We may think that architecture is best represented by plans, elevations, sections, etc. and we may use various forms of imagery to describe buildings and projects but this does not dispense with the centrality of the word. A student who graduates without having acquired the skill of describing buildings will not be able to animate their relation to architecture with the power of speaking or writing. The essay is a crucial starting point of being able to represent architecture in discourse. It is a skill just as much as drawing.

What is an essay?

An essay is the attempt to answer a question through argument and the presentation of evidence for the argument. In this sense a good essay requires a good question. You cannot write an essay on a topic. It makes no sense to write an essay on the architecture of Michelangelo or of Le Corbusier. A topic is just a title. It provides the student with no definition of the essay- which is a problem to be solved. All that a topic invites is information. But information can never be the basis of an essay even though information has a subordinate role as evidence. This is why from the beginning reliance upon sources of information such as Wikipedia or encyclopaedias, or even scholarly books can never provide the basis of an essay. Of course information or ‘facts’ are crucial in the field of evidence. You cannot construct a reasonable argument which doesn’t have evidence or which runs counter to the evidence. In this sense an essay is by its nature hybrid, it is an argument but one which must appeal to the evidence. In practice this means that every time you use a fact in an essay it must be in support of an argument. An essay
then is an answer to a question based upon an argument which in turn justifies itself by reference to evidence or facts.

But what is an argument? This is worth asking because the answer is to some extent counter to the ways in which some educational systems have developed. There are still some systems in which a certain privilege is accorded to an official ‘line’ whether that is expressed by the lecturer or manifest in a textbook. In this case learning, memorizing, and repeating the ‘line’ is the desired outcome. If anything the essay would simply be a test to the student’s capacity to reproduce the ‘line’. This is absolutely what we do not mean by an essay. Taken to an extreme this is actually what we would call plagiarism. Perhaps this is why there is still some confusion about what the AA and other universities mean by plagiarism. Had one been brought up in an authoritarian educational system, the uncritical reproduction of the official ‘line’, be it the professor’s or the textbook’s, then what we call plagiarism would presumably be judged as a virtuous form of the completion of an academic task. We do not take this view at all. While we would hope that you find lectures helpful and interesting and while we insist that you read more than you do, the objective of the essay is not to reproduce them but to ask you what you think about them. In this sense the essay is a subjective response to a question. You ask yourself what you think about the question and your essay will be guided by your conclusions. In this way you are using the essay to come to a decision about what you yourself think. This may take the form of agreement with what you’ve read or it may take the form of violent disagreement. But in either case what is important is what you think. Only in this way can you come to learn what you think. Perhaps you will change your mind next year but this doesn’t matter, you will still be using the basic skill of asking yourself what you think now.

We have established that an argument must be made from a subjective point of view. It must be from your point of view. But that does not mean that it is what we might call ‘merely subjective’. An essay is not just the dogmatic presentation of personal opinions. While the whole essay is from a subjective point of view, at the same time it is controlled by the need to justify your claims and perhaps to changing your views in the light of the evidence which you have been studying. An argument is different from the expression of an opinion because it is constructed via the use of evidence. The evidence you use will support your argument. Central to the nature of the essay is this connection between the argument and the evidence. To establish your argument you need to select and present evidence that supports it. Sometimes this might involve your need to deal with the fact that your argument is in opposition to other arguments. In this case you will use evidence to reject the opposing arguments. So the fact that the essay is subjective, is your own argument, nonetheless has to be justified in terms of evidence. We might think of evidence as the public space of arguments. My definition of the essay is one which both insists upon its subjective character, that it is your answer and what you think but that this is quite different from it being just a personal expression of feeling and intuitions. You are as it were subjecting your subjectivity to the public forum of evidence. The essay is both subjective and public. You can see then that it follows the basic logic of design- of a private creation transformed into a public object.

Preparing for the essay
Having tried to explain what an essay is, let us look at the stages of preparing for it. Obviously it is here that you will be preparing by consulting a range of sources. It would be too much to call this research but it has about it the elements of research and the skills which you acquire here will enable you to undertake larger projects than just the essay. Assuming that you have attended the lectures and have done the reading indicated by the course bibliographies and assuming that perhaps in conjunction with your tutor, you have formulated an appropriate question at a certain point you will be ready to prepare the essay. You should regard this preparation as a vital and independent stage. Many students still leave no gap between the research they have been doing and starting to write the essay. It is as if they are largely concerned to get the essay ‘done’. This is a minor but real piece of insanity. You cannot start
writing without knowing what to write. You need to prepare for the essay by thinking about the essay. Some will do this with a piece of paper, some will do it by going for a walk, and some will ask a friend to listen to their proposal. Each person will probably find a different way of performing this task. You should follow whatever device seems to suit you. But in one way or another it is a vital and indispensable moment. You are asking yourself what you think and you are coming to some sort of conclusion. As we have already implied, those conclusions which will form the outline of your argument need to be fitted together with the evidence for them.

Planning the essay
Many students’ essays do the students a real injustice. The essay they produce, one can tell, is not nearly as good as it could have been. This is not necessarily about the quality of the student or the amount of research done, it stems solely from the student’s failure to plan the essay and therefore to organize the argument of the essay. They could have done it but they didn’t. No one can write an essay expecting to answer the question as a result of just writing it. You must make a clear distinction in your mind between the structure of your argument and the process of writing. In other words you must have a plan which contains both the argument you wish to make and what is a separate issue, the sequence in which you are going to make it. If perhaps out of urgency if you think you will just start writing and hope that the argument will miraculously appear, you will inevitably produce a much poorer essay than you are capable of. You cannot burden the process of writing with too many simultaneous tasks. If we look at this problem carefully we see that there are in effect three quite separate tasks. The first we can call the argument as such or the ‘logic’ of the argument. You should put down, and it need not take more than half a sheet of paper what the overall argument is and how it connects to different pieces of evidence. The second stage is a somewhat different task- it is how you are going to sequence the first stage in a continuous piece of writing. You may, for example, decide to start the essay in a way which is different from a logical sequence of your argument. Often successful openings concentrate upon the nature of the question rather than stating the logical sequence of the argument. Often conclusions return to the opening paragraph as a way of ending the essay. The end of an essay is rather different from the conclusion of the essay. If the first stage is a plan for the logic of the essay, the second outline concerns a plan of the sequence of the essay- what we might call the rhetoric of the essay. In all events this process of planning the essay should leave you in no doubt about what you are going to argue and how you are going to argue. You are now ready to write the essay, and can now concentrate on the literary task of writing it in as clear and interesting a way as you can. You are no longer burdening the writing with all the other tasks of organization within the essay. You now know at every moment in writing the essay what is coming next. Indeed if you have planned properly, you yourself will no longer be burdened with the anxiety of what you are going to say next. You already know. I would hope at this point that you begin to experience the pleasure which can come from writing. If you experience it as a dreaded punishment, it almost certainly means that you haven’t prepared the argument.

The essay and the paragraph
This section is implied by the previous section but looks at the problem from a functional point of view. The essays you are asked to do are really very short. But even in a short piece of writing it is worth breaking it down further into basic units. We might say that the basic unit of an essay is the paragraph. In an essay of say 3,500 words there are only a limited number of paragraphs- perhaps between ten and twelve. There is here a useful convergence between the number of paragraphs and the number of points which you might make in the essay. Each paragraph is the place where you make a point, an element of your overall argument. In this case we can look at the essay overall in which it is useful to think of the first paragraph as a statement of your overall argument. Paradoxically the first paragraph is really a statement of your conclusion. Apart from anything else this makes it much easier on the reader. It is as if the reader is now in the position of immediately seeing what it is overall that you wish to argue. The reader can now understand where you are going in the essay. This is very important. Too often students write essays without any sense that the essay is designed to be read by someone else.
Too often one reads an essay which might in itself be full of interesting observations. But at the same time one has no idea where the essay is going and you begin to suspect that the writer did not either.

These points establish a kind of strategic link between the opening paragraph and all subsequent paragraphs. Indeed what is true of the essay as a whole is true about each paragraph. One can regard each paragraph in terms of an opening sentence which establishes the nature of the point that the rest of the paragraph argues for as well as presenting evidence that supports the argument. This advice should not become a mechanical formula for the essay but it is certainly worth applying it to the plan for the essay. The actual essay will deal with the plan by drawing it back to considerations of the essay in terms of its literary composition. But I have never seen an essay which suffered from too much clarity.

Footnotes and Bibliography
Overall these notes are designed to help students think about how to do an essay. There are of course published guides on how to write an essay but they tend both to be very obvious and not very concerned with how skills of argument and writing are in fact part of the general skill of an architect. But such guides might be useful in establishing a number of conventions such as how to present footnotes and bibliographies. My only observations on these issues would be that footnotes are mostly used by students to identify the source of a quotation. Obviously students must always acknowledge quotations, or they risk being accused of plagiarism. Certainly the correct way to acknowledge a quotation is to provide the source with a footnote. But there are other uses of a footnote. Sometimes one will have some very interesting piece of information which one wishes to express to the reader although it may not be relevant to the argument. It might confuse the reader if it were in the main body of the text. In this case it is better to put it as a footnote and to free the main text from it. Sometimes it is worth putting in your own thoughts in a footnote if they do not directly bear on the argument.

Conclusion
Although these notes were intended to deal with issues which are not usually part of the practical guides to essay writing, they also I hope serve as a justification for the importance of essay writing. An essay is an opportunity to develop your skills in argument and writing. These skills at an intellectual level are an absolute condition of acquiring an independent identity as an architect. Like all skills it is neither natural nor spontaneous, it develops only through and with practice. In professional terms it cannot be overstated how important these skills are. Without them, a student would emerge into a professional world with one hand tied permanently behind his or her back. It is the means through which you will be able to translate your design skills into a public world of architecture. The practice of architecture requires skills of analysis, of advocacy, and of analysis. The architect is by definition a public intellectual. No one can and no one can afford to neglect the centrality of these skills. Their effective employment is one which is both required and rewarded in architecture. I hope you find these notes useful and I am more than willing to discuss them individually with students during the year.
Referencing may seem constraining or overly detailed. Keep in mind these systems exist to facilitate research. Once you learn a system, it becomes automatic and enhances your research and writing. Referencing is a type of hypertext link. Instead of connecting you to another website, references indicate other sites of knowledge.

Bibliographies are a way to categorise information, enabling you to work with sources in more creative ways. A bibliography places a work within a larger constellation of works, showing the corpus of knowledge from which it is drawn and the position it takes in regard to previous arguments. A footnote can lead to unexpected material, indicating new possibilities or holes in the argument.

Notes document as well as develop connections and arguments not central to the main arguments of the paper. In some styles of writing, footnotes carry the burden of academic proof and argument, which allows the main text to become more fluid.

Inconsistent referencing is unacceptable. Casual citation displays a general lack of rigour; it becomes unclear how you have utilised the materials of the course and how you understand and interpret them; your arguments are less clear, and it is difficult to discern what you are trying to say versus the opinions the other authors are referencing. In extreme cases, casual referencing practices veer into plagiarism.

Do not plagiarise. You must cite the words of another author. This is not confined to verbatim transposition; excessive paraphrasing is also plagiarism. Cite anything you did not generate that is not of "general knowledge." Cite images. Cite music. Cite recognisable code.

Every academic professional journal requires standard referencing. If you are interested in writing or publishing your design work, learn the conventions as soon as possible. Transforming or developing variations of a standard referencing style is often effective as long as you understand exactly what is being altered. Referencing must be treated in a precise and critical manner.

For “creative referencing” that falls within acceptable academic parameters see Rosalind Krauss’ annotated referencing style in The Optical Unconscious.

Referencing Manuals

The following are perhaps the two most complete reference books used for referencing and for the preparation of manuscripts. Most academic journals use one of these as their model. These compendiums have an example for every type of reference imaginable including referencing samples for electronic sites and databases. They are available in most libraries and bookstores. Alternately, the notes, used by a major publisher may clarify more common citations. Be careful which publisher you use and utilize the same one throughout (MIT Press is a good example).

The Chicago Manual of Style, 15th edition
http://www.press.uchicago.edu/Misc/Chicago/cmosfaq/cmosfaq.html
The Humanities Referencing Style

This form of referencing puts the bibliographic information into a footnote or endnote called out in the text by corresponding superscript number. Short articles may be accompanied by a bibliography, although this is unnecessary if every source is cited in a reference. Longer works almost always have a bibliography. Please note, according to this style, references within a note or within the bibliography have slightly different forms. It’s also the most common within architecture.

Referencing with a footnote- at the bottom of the page for a footnote or at the end of the text as with endnotes, you have the following citation:


The reference marker occurs within the body of the text, usually as a superscript number. Full footnotes appear at the bottom of the page on which the reference occurs, endnotes at the end of a chapter or at the end of an entire work. Both footnotes and endnotes refer to a quote, paraphrase or reference to a text or object.

Don’t over footnote; provide one whenever you are utilising an idea from another writer that is not a well-known fact / something that could be assumed to be common knowledge.

Referencing with the bibliography- at the end of the text you may have a bibliography in which the book appears in alphabetical order according to author:


Bibliographies should list every book used in the construction of your argument, whether explicitly cited in the text or not. More traditionally a bibliography would list the complete corpus of writings on a topic; anything less complete would be called “References” or “Works Cited.” Bibliographic citations have different forms than the footnote/endnote and are listed alphabetically according to the author’s last name. If you use more than one work from a single author, list these in ascending chronological order. If a text has more than one author (e.g. Deleuze and Guattari), use the name that appears first on the title page of the text.

Remember that bibliographic references and footnotes/endnotes vary slightly in form. The former is considered a complete and independent phrase; the latter is a dependent, an extrapolation, or refers to the main text.

Using “ibid” and “op. Cit.”- Most people who use “ibid” within their citations do so improperly. Ibid may be used only when a reference is exactly the same as the one immediately preceding it. You may not use ibid if any aspect of the reference is different besides the page number.

For example:

35 Ibid, 67

“op. cit.” or “loc. cit.” [Latin abbreviations for “in the works cited” and “in the place cited” respectively] are often used to refer to a previously cited work.
Both of these methods can confuse the reader and are prone to mistakes. For example, what if you also referred to another book by Krauss earlier in the text, but overlooked this fact? Or, of the last reference was pages before, the reader must do too much work to find the information. In such a case, using “op. cit.” could misdirect the reader. As a result, general use of “ibid” and “op. cit.” is now discouraged. Instead, use the short form of author, date, page number. This does not take any more time, is clearer, and avoids any confusion due to mistakes in referencing. For word processing, it has the added advantage of remaining correct even if the citation moves to a different point in the text; this is not necessarily so with the abbreviations.

Examples of some basic references:

Footnote:


The footnote's bibliographic reference:


The following examples are offered as bibliographic references.

Two authors:


An article in a journal:


An article or essay on an edited anthology or monograph:


An edited anthology or monograph:


An entire internet site:


Quoting Material

If a quoted passage of text is shorter than three lines, it should be indicated by quote marks (“and”)-

If you leave out part of the quote, use an ellipsis (...) at the point of omission unless it is absolutely obvious the quote is a fragment. If the omission occurs at the end of a sentence add a period or ending punctuation. If the omission is longer than three lines of text, indicate this by breaking the quoted text into a new paragraph after the ellipsis. For example:

As Georges Bataille states “monsters thus would be the dialectical opposite of geometric regularity.”1

If longer than three lines it should be set on its own without the use of quotes, the following paragraph is an example-

As Georges Bataille states in his short essay, “Deviations of Nature:”

Without broaching… the question of the metaphysical foundations of any given dialectic, one can affirm that the determination of a dialectical development of facts as concrete as visible forms would be literally overwhelming…2

From this statement, one can begin to understand the problematic moment when the ideal, the average becomes epistemologically consonant – they are, as Georges Canguilhem argues, degree zero of monstrosity.

Quotes within quotes should use single marks (‘and’)-

As Georges Bataille states, “a ‘freak’ in any given fair provokes a positive impression…”3
Course Lecturers: BRETT STEELE (Term 1)  
PIER VITTORIO AURELI (Term 2)  
Course Tutor: MOLLIE CLAYPOOL  
Teaching Assistants:  
FABRIZIO BALLABIO  
LIONEL EID  
POL ESTEVE  
WINSTON HAMPEL

Seminars Tuesdays, 10.00am-12.00pm  
Lectures Tuesdays, 12.00-1.00pm

Attendance  
Attendance to the lectures and seminars is compulsory. Attendance is taken in both lectures and seminars by the seminar tutors. Repeated absence from or lack of participation in the course can affect a student’s final mark for the course.

Readings  
All assigned readings are to be read by each student. Each week the readings will be made available on the 1st year HTS website by the tutors, and a photocopy of the reading will be available in the library on the HTS 1 programme book shelf. The website is aafirstyearhts.wordpress.com and the password is ‘readings’.

Marking  
Marking framework adheres to a High Pass with Distinction, High Pass, Pass, Low Pass, Complete-to-Pass system. Poor attendance can affect this final mark.

Term 1 Submission  
In Term 1, a 2,000 word academic essay (not including references, bibliography, etc.) is a requirement for the course. This 2,000 word essay must be supplemented by 10 well-curated, and rigorously selected images, with annotated captions, that acts as a photoessay to support the written work. The 2,000 word essay must be a comparative essay, picking one set of architecture words either addressed in the lecture or studio to frame the work. The submission will be developed throughout the term in seminar sessions and individual tutorials with seminar tutors.

Term 2 Submission  
In Term 2, a 3,000 word essay (not including image captions, references, bibliography, etc.) is a requirement for the course. This 3,000 word essay must be supplemented by visual material (including images, data, maps, drawings). The essay could continue being in the form of an academic essay, but students will be encouraged to ‘think outside the box’ when writing this submission. Further information on this submission will be available at the start of Term 2.*

* An extended course guide with seminar and submission outline will be given out at the start of Term 2.
This course will examine the historical and theoretical background of key words and concepts in modern and contemporary architectural culture. What words and concepts define the contemporary discipline of architecture, and its culture of ideas about space and structure; programme, form and the city? How is architecture understood, learned and advanced by architects? How do theoretical and historical ideas relate to the forms of learning that unfold in the making of projects in the design studio?

Each weekly session will pair two words, for the purpose of analyzing the relationship between the concepts and practices associated with these terms, and how they operate and are used in the work of architects shown in each lecture. The course sets out to scrutinise, through these terms, significant architects, movements, projects and texts, in order to provoke new way of thinking about how these words relate to current architectural practice, knowledge and learning. The lectures will introduce the ways in which architecture exists as a distinct form of human knowledge, and culture. The seminars are an integral part of the course, and operate as a platform for discussion in which both the lectures, readings and submission development will be discussed in an open dialogue. These discussions should guide students in the development of their essays, within which the essay topic, structure and style should all be considered. Ultimately, the seminars aim to ensure that students learn how to analyse, interpret, argue for and apply texts and readings of buildings, both within their own architectural thinking and projects. The words selected for HTS lectures relate to this term’s progression of studio projects, providing a means for establishing a broader cultural framework to the design and research activities of the studio projects.

Session 1 – Tuesday 7th October
SCHOOLS vs. STUDIOS

Seminar:
1 - Introduction to the course,
2 - Research skills session with AA Librarians

Lecture:
This week the lecture will introduce the AA and the First Year Studio, and the core disciplinary content of the field: one learns architecture by making projects, in the studio. An explanation of what makes the AA a unique kind of architecture school for the ways in which individual agendas and projects are shaped by students. It will also cover experimental architecture schools in Europe in the early 20th century, and their reaction to the 19th century academy, and the emergence of the modern research university from the medieval monastery. Examples will include: the Medieval Monasteries; Ecole des Beaux Arts; Vhutemas; Weimar; Bauhaus; Ulm; Cooper Union & AA; late-modern professional schools (Rudolph’s Yale Art & Architecture Building, Andrews’ GSD); the AA today.

Questions to address: How does an architect learn architecture? What is the purpose and form of an architecture school, and what makes them so important? Why is the studio the most important space in an architects’ lives, and what makes the Architectural Association an experimental school?

Primary Reading:
Secondary Reading:

Session 2 – Tuesday 14th October
WORDS vs. TECHNOLOGIES
Seminar:
1 - Bring a set of 5 answers to the questions from Session 1, SCHOOLS vs. STUDIOS to seminar, printed on an A4 sheet of paper. These answers should be used for seminar discussion.
2 - Pick the 2 architecture words you would like to use for your submission, they must be from the same session.
3 - Pick 2 projects, architects, books, images that you would like to compare in your essay.
Lecture:
This lecture will look at the fundamentally literary and technological dimension of all architectural life, i.e. architecture as published texts; the role of printing and documentation in the studio; the school as a technology; building and technologies; representational technologies. Examples will include: 20th century architectural monographs (the evolution of 20th century magazines, monographs and manifestos); modern and avant garde graphic design; Mies details; modern building & construction technologies; Frank Lloyd Wright (drawing as a technology); Contemporary digital/software design systems; Superstudio (image manipulation).
Questions to address: Why are books a fundamental part of architectural culture and practice? What is a portfolio? What makes architecture a fundamentally technological pursuit? In what ways is a school, or studio, a form of technology? What are the consequences of today’s communication media, networks, and distributed technologies in the design studio?
Primary Reading:
Secondary Reading:

Session 3 – Tuesday 21st October
GRIDS vs. GEOMETRIES
Seminar:
1 - Bring a set of 5 answers to the questions from Session 2, WORDS vs. TECHNOLOGIES to seminar, printed on an A4 sheet of paper. These answers should be used for seminar discussion.
2 - Bring 5 images for the submission are due this week in seminar, printed on A4 paper in colour. At least two of the images should be of the buildings you are choosing to write about – be creative with the kinds of images you choose and they cannot be from an Internet source (not from Wikipedia or Google Images, they must be from a book, journal, magazine or archive) – the other 3 can be any other kind of graphic material you would like to use to support the beginnings of a comparative analysis between the two buildings, projects, etc (collages, photographs – not from the Internet, news clippings, reviews, drawings, etc) that you have chosen.
Lecture:
This week’s lecture will look at the fundamental architectural knowledge of arranging space and structure. Particularly it will look at the shift from pre-modern composition, to modern organization. Examples will include: Sol Lewitt (the grid as a material); minimalist sculpture; Mies plans; Wittkower’s humanism; Colin Rowe’s comparison of Palladio v. L-C. For geometries: L-C’s rome drawing (rome as platonic solids), his figural projects (Ronchamp etc.); today’s (ambient and other kinds of) formalism.

Primary Reading:
- Rosalind Krauss, “Grids”, in *October* (Vol. 9, Summer 1979), pp. 50-64. Also in *The Originality of the Avant Garde and other Modernist Myths* (MIT Press, 1985).

Secondary Readings:

**Session 4 – Tuesday 28th October**

**SPACES vs. STRUCTURES**

**Seminar:**
1. We will be split into groups within the seminars, and each group will write a short architectural manifesto (300 words max) using text and concepts from Kraus, Wittkower and Rowe’s texts from the session the week prior. Come prepared with at least 2 questions, words, phrases or sentences for each reading (6 total), printed on A4 paper.
2. At least 5 key sources for the submission are due in this week in seminar, printed out on A4 paper. At least 2 of these sources need to be primary texts on the two buildings, architects, books etc. that you are choosing to write about – i.e. they are either by the architect or by a key contributor to reviews, criticism, etc. on the building. They cannot be from the Internet, they must be from a book, journal or archive. The other 3 sources can be any other secondary source material – by they must be written by architectural historians, critics, theorists or educators. They cannot be from a blog unless that blogger has made a significant contribution to the architectural discipline (i.e. Lebbeus Woods) or any other Internet source that is not academic.

**Lecture:**
This lecture will place the invention of modern space as a central topic of architectural investigation, and the essential role of structural arrangement in the organization of space. Examples will include: Eisenman’s formalism v. Grave’s historicism; Venturi’s house and theories; Kahn’s served/servant space; rise of high-tech architecture where structure and service become form; modern engineering examples (le Ricolai; Fuller; others); 18th century French Encyclopedia.

Primary Readings:

Secondary Readings:
- Denise Scott Brown, *Having Words (Architecture Words n. 4, AA Publications, 2009).*

**No Class Tuesday 8th November – AA Open Week**
**Session 5 – Tuesday 11th November**

**HISTORIES vs. VISIONS**

**Seminar:**
1. Bring 10 images from your 5 key sources for your submission. This should supplement the 5 images you brought in Session 3. You should have 15 images for your submission now.
2. Additionally, bring 1 key quote for each key source. This requires that you must have read these key sources. We will discuss how to use image and quotes to construct an argument. This will be important to consider when listening to the lecture later this day. How do words and images construct arguments and positions?
3. Discussion of how to structure an essay and outline.

**Lecture:** This lecture will be an introduction to key 20th century modern architectural histories, from Gidieon to Summerson, Tafuri, Frampton. The disciplinary importance of architectural histories in architecture. Rise of modern futurisms and the avant garde; the pre-modern and modern pursuit of visionary, futurist projects for architecture and the city. Examples will include: Gideon, Tafuri, 1970s AD issue on architecture history. Futurists; Ledoux/Boulee; Broadacre City; Metabolism; Superstudio.

**Primary Reading:**

**Secondary Readings**

**Session 6 – Tuesday 18th November**

**PROJECTS vs. BUILDINGS**

**Seminar:** This is the second to last seminar of the term. By now, students will have collected 2 words, 2 buildings/architects/projects, 15 images, 5 key sources and 5 quotes to use in their essay. This week we should begin to bring this all together into a structured outline for your submission with at least 300 words of writing describing your argument, or point of view, for your comparative analysis. Please bring the outline/structure printed out on A4 sheet of paper.

**Lecture:** This lecture will be distinguishing between architecture (as a form of knowledge, and speculation on how we live/cities) and buildings – how things are actually built and realised, compared to how they are theorized, thought about and communicated. Examples will include: modern and contemporary competition entries and projects: early 20th c. Chicago Tribune Tower (Burnham’s Chicago Plan); La Villette; the Peak; Team X matte buildings and unbuilt proposals. The projects and influence of Cedric Price; Independent Group and the Smithsons; Archigram v. the Pompidou Centre; the metabolists and Osaka exposition.

**Primary Readings:**

**Secondary Reading:**
Session 7 – Tuesday 25th November

DIAGRAMS vs. PROGRAMS

Seminar: In this seminar your final submission should begin to take shape. Students are expected to bring at least 50% of the required writing (1,000 words) and have begun to develop the order of images and annotated captions for their photoessay.

Lecture: This lecture looks at the 1990s rise of diagrammatic architecture – architecture in an information age; flows, movement and dynamic performance vs. static form, institutional space, typology. Examples include: Any Magazine on the diagram (90s); Computational/informational examples. 1970s typology, 19th century rise of the Encyclopedia and types.

Primary Readings:

Secondary Reading:

Session 8 & 9 – Tuesday 2nd and 9th December

Individual tutorials will be provided on your final submission during this time.

Term 1 Submission Hand-In: Friday 12th December 2014, no later than 1pm.

TERM 2:

WHO IS THE ARCHITECT? ARCHITECTURAL HISTORY SINCE THE 15TH CENTURY
PIER VITTORIO AURELI

The lecture series for Term 2 aims to provide the students with a general knowledge about architectural history. However, this general knowledge can be acquired not through a (seemingly) exhaustive panorama or survey, but through specific readings of paradigmatic case studies.

This year the case studies selected for each session will be the work of singular architects and the question that we will continuously ask to ourselves will be: who is the architect? What does she or he do? Does the architect’s work strictly depend on patrons and commissions? Is the architect free to propose visions and ideas for the city? Can the architect be considered an intellectual? Why does the architect write? Is architecture a specialised field of knowledge or the last opportunity for a synthetic interpretation of the urban condition? Can architecture be practiced politically?

We should clarify from the onset that the singularity of the architect’s work always emerges from a common shared knowledge, which is at the end the very core of architecture itself. For this reason each architect’s work will be analysed within the historical and social context in which she or he operated. Above all, we will focus on the relationship between the architect’s role and the development of the city. Perhaps the most difficult task for architecture is to come to terms with the city. The architect has limited political power and its profession is badly equipped to solve urban problems. Yet history has often demonstrated that images and ideas produced by architects had a great resonance not only within the construction of the city but also (especially) towards the city imagination of itself.
Session 1 – Tuesday 13th January
Who is the Architect? Leon Battista Alberti and the construction of a professional mandate
Reading: Mario Carpo, excerpt from The Alphabet and the Algorithm (The Mit Press, 2011).

Session 2 – Tuesday 20th January
Filippo Brunelleschi: The Architecture of the Gaze

Session 3 – Tuesday 27th January
Donato Bramante: Bigness and Space
Reading: excerpt from Arnaldo Bruschi, Bramante (Thamed and Hudson: London, 1976).

Session 4 – Tuesday 3rd February
Christopher Wren: Architecture at the End of Classicism

No Class Tuesday 10th February – AA Open Week

Session 5 – Tuesday 17th February
Margarete Schütte-Lihotzky: Material Feminism and Architecture

Session 6 – Tuesday 24th February
Le Corbusier: The Dom-ino effect

Session 7 – Tuesday 3rd March
Sigfried Giedion and Manfredo Tafuri: History as a Project

Session 8, 9 & 10 – Tuesday 10th, 17th, 24th of March
Individual tutorials will be provided on your final submission during this time.

Term 2 Submission Hand-In: Friday 20th March 2015, no later than 1pm.
The second year History and Theory course has typically been a history course. This is certainly not a ‘survey’ course. Thus, we will focus on the variety of types of architecture both in historical terms and within different cultures. In this sense, the lecture and seminar course is about how culture influences architecture and about how architecture influences culture. The aim of the lecture series will attempt to show how different cultural forms produce different architectural forms. To demonstrate this we look at how different religious forms have been related to different architectural forms; or how different forms of political power have produced different types of architecture; or how people have argued that different national identities have resulted in different architectural styles. The course attempts to make students aware of the relation between architectural form and a range of social focus.

The lectures will cover a wide range of topics exposing the relationship of architecture to culture. We will look at the variety of ways in which buildings are designed in many cultures and traditions throughout time. We will investigate modernity’s recent invention of the figure of the ‘architect’ while comparing this with other building traditions, as well as buildings without an architecture and with vernacular architecture. The concentration of architectural designs within the profession of trained architects would strike many cultures as strange and it is important to be aware of the other methods and design practices that are devoid of the ‘architect’.

A central dimension of the course is to provide an opportunity for students to develop their own arguments through the practice of writing. Unlike previous courses, the Thursday morning session will start with the seminar and conclude with the lecture. The seminar will provide the students a forum to discuss readings, present readings to the class in groups, and engage with graphic exercises that are aimed at developing arguments through research and writing. Time will be set aside to deal with the problem of how to research and write well-structured essays. This course-booklet contains an example paper on how to think about writing an essay. We hope you find it and the course useful in improving your ability to construct an argument through the important skill of writing.

**Term 1**

Please note that all assigned readings for each lecture topic will be discussed in the seminar portion of the class during the following week. For example, Week 1 readings on ‘Architecture’ will be discussed during the Week 2 Seminar.

**Week 2 (October 9) – ARCHITECTURE**

How is architecture defined, and how is it distinguished from building, from the vernacular and from ‘architecture without architects’.

Required Seminar Readings:

Readings for this week will be a collection of short texts provided by the tutors from a diverse selection of many publications including but not limited too the following: Vitruvius, Then Books on Architecture; Alberti, L.B., On the Art of building in Ten Books; Laugier, Marc-Antoine, An Essay on Architecture; Durand, Jean-Nicolas-Louis, Précis of the Lecture on Architecture; Le Corbusier, Towards a New Architecture; Gideon, Sigfried, Space, Time and Architecture: The Growth of a New Tradition; Venturi, Robert, Complexity and Contradiction; Koolhaas, Rem, Delirious New York

These texts will be handed out to the students prior during Week 1 Seminar

Week 3 (October 16) – DESIGN

What is design? How did it evolve? How does it relate to the emergence of architectural representation, plans, sections, etc.?

Required Seminar Readings:


Suggested Seminar Readings:


Week 4 (October 23) – THE ARCHITECT

Can there be architecture without architects? How did the figure of the architect evolve?

Required Seminar Readings:


Suggested Seminar Readings:


Week 5 (October 30) – **PROFESSION**

The nineteen-century emergence of architecture as a profession is compared with medicine. Why has the architect occupied a weaker position then the lawyer or the doctor?

Required Seminar Readings:


Suggested Seminar Readings:


Week 7 (November 13) – **ARCHITECTURAL HISTORY**

An account of how architectural history has evolved as a concept and as a practise in the nineteenth-century. Why is it based upon a narrative of a successions of styles, classical, gothic, renaissance, baroque, etc. and why this is a problem for architectural students?

Required Seminar Readings:


Suggested Seminar Readings:

Week 8 (November 20) – RELIGION

Each of the major monotheist religions is associated with major architectural outcomes. The lecture will question the extent to which the religions in themselves stamped particular forms upon architecture. It shows how each of them derived from Roman and other forms.

Required Seminar Readings:


Suggested Seminar Readings:


Week 9 (November 27) – POWER

Architecture has emerged as always been central to the exercise and expression of power. Rulers have tried to convey their power through architecture; different types of regimes have sought to clarify their nature through architecture. Considers the form of the ‘palace’ and its mutations.

Required Seminar Readings:


**Suggested Seminar Readings:**


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**Friday December 12, 1pm – Term 1 essay submission**

**Term 2**

**Week 1 (January 15) – THE HOUSE**

Describes why the house, a site of human shelter has often been regarded as its fundamental unit of architecture and why I argue that this is wrong. Considers the emergence of the nineteenth-century of the category of ‘housing’ as a category of urbanism.

**Required Seminar Readings:**


Banham, R. 'A Home is not a House', in *Art in America, Number 2*, April 1965. Drawings by François Dallegret.

**Suggested Seminar Readings:**


Week 2 (January 22) – THE ENGINEER AND INFRASTRUCTURE

The lecture traces the overlap between architects and engineers in building and projects to provide an infrastructure for cities, for transports, etc and will discuss new types of architecture that evolve out of industrial capitalism. It will also attempt to specify the different by tracing the hostility of architects to the proposal for the Eiffel Tower.

Required Seminar Readings:


Suggested Seminar Readings:


Week 3 (January 29) – NATIONAL IDENTITY AND ARCHITECTURE

In what sense are the national identities, which are expressed in architecture? The lecture will discuss the contemporary India and China, architecture and national identity.

Required Seminar Readings:


Suggested Seminar Readings:


Bunschoten, Raoul, ‘Stirring the City’, OASE Journal, No. 48, p.72-82, 1998

Week 4 (February 5) – POLITICAL IDENTITY AND ARCHITECTURE

Can we speak of architectural forms as an expression or representation of politics? Was there a Nazi architecture, or a Fascist architecture, or a Communist architecture? What does it mean by calling a building conservative, or indeed revolutionary?

Required Seminar Readings:


Suggested Seminar Readings:


Week 6 (February 19) – THE MONUMENT

Architecture has had a traditional task to help the remembrance of events and persons. How can one think of dimensions of memory within the contemporary city and architecture?

Required Seminar Readings:


Suggested Seminar Readings:


Week 7 (February 26) – ARCHITECTURE WITHOUT BUILDING

Architects have traditionally designed objects, which are not ‘built’ – theatrical entertainment, pageants into twentieth-century projects for staging, exhibition, design as well as furniture and household objects. How does architecture relate to the general industrial field of design?

Required Seminar Readings:


Suggested Seminar Readings:


‘Power of Ten’, Film Documentary by Ray and Charles Eames, 1968

Week 8 (March 5) – THE LIFE AND DEATH OF ARCHITECTURE

Most architectural histories treat ‘history’ of a building as the date of design and construction. But one important dimension of architecture is that it frequently survives. Through the case study of the Parthenon and its new Museum the life span of the building will be addressed.

Required Seminar Readings:

Hugo, Victor, The Hunchback of Notre Dame,


Suggested Seminar Readings:


Forster, Kurt, ‘Monument/Memory and the Mortality of Architecture’, p. 25-35 in Oppositions Reader


Friday March 20, 1pm – Term 2 essay submission
Course Assignment and Submission Requirements

The final submission is a 3,000 word academic essay per term (each student is to complete two essays for the academic year). To start the essay the topic must be generated from one of the various Second Year HTS lecture topics per term and its related bibliography. First and foremost the essay needs to be generated around an argument that allows the student to provide original and critical content on the related topic. As long as the essay relates to the HTS course students are encourage link the topic to their ongoing unit studio agenda and work as a way to formalise their ideas in written form. Essays are to be properly cited, with footnotes, bibliography and image/illustration credits. Please see the Complementary Studies Handbook, which provides information on how to construct a proper academic essay as well as proper referencing, footnoting and research methods. One digital copy is to be uploaded to the 2nd Year HTS website and one hard copy is to be submitted to the Undergraduate Coordinator on the term submission date.

In addition to the essay submission requirement students are required to complete a series of reading, presentation and visual assignments throughout the course. These include the following:

Reading Presentations and Debates:

- Typically, there are three required readings per seminar. Each week students will be divided into three groups on the day of the seminar, with each group responsible for one of the three readings. Students will not know what reading they are going to present that week and thus must prepare for all three readings. Week 2 and Week 13 will differ from this method, which will be discussed during class.
- Groups will be approximately five students each

Content Expectations:

- Brief summary of the selected readings
- Selection and description of the most critical quotes from the readings are to be presented
- The discussion of the readings should also take into account aspects from the lecture. The objective of the presentation is to construct a series of questions that will ignite seminar class discussion. Present an argument through the group’s collective reading of the text, not just a summary of the readings. Come to class with questions.

Writing and Visual Assignments/Presentations:

A critical component to the HTS seminar is to provide students with an understanding of the importance of verbally presenting both visual and written material in a clear manner. A series of writing assignments related to each individual paper topic that combine visual media (drawing, photographic images, sketching, etc.) are designed to allow students to present their essay argument through verbal, written and visual material. A major requirement of the AA History and Theory complimentary course is to provide an opportunity for students to develop their own arguments through the practice of writing and these assignments attempt to bridge the wide gap between graphic representation, architectural writing and verbal presentation.

Website:
All required readings, course bibliography and schedules are available to students enrolled in the course on the following Second Year HTS website:
http://aasecondyearhts.wordpress.com/
Assignments Schedule:

Seminar Objective:
The Second Year History and Theory Studies course seminar aims, in conjunction with the course lecture, to expose the influence of culture on architecture and how architecture influences culture. The course will focus on enhancing the students’ ability to read and dissect architectural texts related to the course lecture, present the line of argument within the text and to understand the intertwined relationship between architectural history and theory, design, and graphic and verbal representation of materials. Our aim is not to discuss texts in a direct and straightforward manner, but to ask students to read between the lines, questioning and unearthing the hidden meanings that lie underneath the words. This will provide students with the skills to investigate a variety of architectural subjects through historical and critical techniques that establishes the essential link between canonical texts, classical structures and cultural shifts in relation to current architectural discourse.

Seminar Methodology:
The seminar will be divided into two separate segments. The first segment will facilitate debate within the seminar and between the students themselves and is based on the weekly lecture topic and assigned readings. Students will be divided into teams every week with each group being responsible to explain, discuss and ultimately argue for or against the reading that is assigned to them. It is critical that students read all of the assigned weekly readings in order to make critical connections between the different arguments that are exposed by the different authors. While review of the major points for the readings will be required students are encourage and expected to link the themes of the reading material to relevant contemporary discourse spurring debate within the seminar discussion. As debates, and not so much presentations, these discussions will allow students to begin to develop their own stance on what architecture is, what an architect should be, how they view architecture history, what should be understood as a monument and what architecture’s life cycle is with the assistance of their classmates.

The second segment is focused on writing. A series of exercises throughout the term will help improve and enhance students writing abilities with focus being placed on the construction of a critical argument that is supported by rigorous research. These writing assignments are designed to assist in the development of the 3,000 word course essay submission at the end of each term. The tasks will also be graphic in nature with the intention to teach students the importance of comibing the analytical devices of photography, drawing, sketching and looking with writing as one succinct body of work. Students are expected to present their writing and graphic work to the seminar group initiating discussion.

Attendance:
Attendance to the course seminar is compulsory, based on the AA Student Handbook. Attendance will be taken in both the lectures and seminars.

The success of the course seminar is dependent on students attending class and engaging in discussions and debate. We can learn a lot from each other by simply talking about architectural issues that have been exposed during the lectures and the readings.

Readings:
All required readings are to be read by each student. Students are expected to come to class with questions, observations and insights on the readings and use the seminar as a discussion forum. Each week the readings will be made available on the 2nd Year HTS website by the tutors.
Reading Presentations and Debates:

Requirements:

• You must talk about the readings with your classmates (and tutors) during the seminar. To do this students are expected to complete the readings.
• Typically, there are three required readings per seminar. Each week students will be divided into three groups on the day of the seminar, with each group responsible for one of the three readings. Students will not know what reading they are going to present that week and thus must prepare for all three readings. Week 2 and Week 13 will differ from this method, which will be discussed during class.
• Groups will be approximately five students each

Content Expectations:

• Brief summary of the selected readings
• Selection and description of the most critical quotes from the readings are to be presented
• The discussion of the readings should also take into account aspects from the lecture
• The objective of the presentation is to construct a series of questions that will ignite seminar class discussion. Do not just present a summary of the readings. Present an argument through the group’s collective reading of the text. Come to class with questions.

Writing and Visual Assignments:

Architects are visual. We construct our arguments through drawings and models, both analogue and digital, and present the ideas of the project verbally. However, the tool of architectural writing cannot be overlooked. A major requirement of the AA History and Theory complimentary course is to provide an opportunity for students to develop their own arguments through the practice of writing and this media project attempts to bridge the wide gap between graphic representation and architectural writing. The Term 1 graphic project assignments are listed below.

Term 1

Assignment #1:

Assigned: Week 2
Submission Due: Week 3, October 23rd

Write a manifesto on the question, ‘what is architecture?’

Min. 100 words and max. 500 words
Graphic material or images are encouraged

Assignment #2: Essay Topic Selection and Photographic Image Supplement

Submission Due: Week 5, November 13th

This week the assignment consists of two related parts. First, each student is to present a topic that they intend to research and write on for the course essay submission. The essay topic is to be 100-200 words that explains the topic, what texts, buildings, architects, artists, etc. you intend to investigate, and how it relates to one of the course lecture topics (an example will be provided in seminar). Second, the written aspect is to be supplemented with two photographic images:
1. A found-object in London – relating to the essay topic, this object is to be photographed by the student while exploring the city, commuting back and forth to school, visiting a gallery, drinking a pint in the pub or whatever else you may encounter in London. For example if your essay topic deals with Religion (Week 8) you can shoot an image around the city that refers to this – a church, an image of a ritual, a person handing out religious fliers, etc. The more specific you are the better. Focusing on a spire or a stained glass window or religious space that is not a building, something that is very specific leads to a better essay.
   It must relate to the essay topic.

2. A sourced image from a publication – relating to the essay topic, this image must come from an essay, book, journal, etc. and be properly sourced (see the Complementary Studies Handbook for citing guidelines).

Both images are to relate to each other and to the essay topic text. The images can be similar (two spires/ two rituals/two churches) or they can be contrasting (a stained glass window and an image of a biblical painting or a monk/priest and a person that has lost their way).

Feel free to manipulate the images as you see fit to best describe your essay topic intentions. Be creative, architects have manipulated images for years in order to prove their point. You can too.

Assignment #3: Essay Abstract and Hand-drawn sketch/collage supplement

Submission Due: Week 6, November 20th

This is an exercise composed by text (a 500 words abstract) and graphics (a hand-drawn sketch or collage), which need to be in a relation of 1:1 – that is 50% text, 50% graphics. It has to be presented using two A4 sheets that must combine as a whole. It can be as if they were two pages of a book, or a single A3 poster, or everything in between and beyond. You can use the sheets both in landscape and portrait.

The basic format can be:

1. One A4 sheet containing the 500 abstract, plus:
   – Student name
   – Seminar tutor name
   – Working essay title
   – A quote, duly referenced
   – Unit

2. Another A4 sheet containing the graphics – a hand sketch/drawing that can also be collaged with other material (newspaper clippings, exhibition leaflets, quotes from texts you have read, film stills or posters, etc.). The drawing should support and explain your essay topic, abstract and most importantly your argument.
Think of this assignment as a poster that you can pin-up on the wall for discussion.

These are the parameters that the assignment must be completed within. However, if you want to overlap the text and the graphics amongst both sheets and be creative in how you present your essay abstract then this is acceptable. Rules are made to be broken.

Assignment #4: Essay Presentation

Submission Due: Week 7, November 27

The final essay assignment will be an individual presentation to the class. It is based on a format that compels the presenter to focus on the most important aspects of the essay topic. Each student presents the following: 10 graphic slides, discussing each slide for 20 seconds (approximately 30-40 spoken words) for an overall presentation of 3 minutes and 20 seconds.

The 10 visual slides and accompanying verbal presentation are to construct your argument in a clear and concise manner eliminating any tangents or non-essential elements – just the meat and bones of the thesis.

This is based on the PechaKucha format of presentation. A demonstration by the tutor will be presented in class to for clarification.

Final Essay Submissions: December 12th, 1:00pm
The final submission is a 3,000 word academic essay. Please see the Complementary Studies Handbook, which provides information on how to construct a proper academic essay as well as proper referencing, footnoting and research methods. One digital copy is to be uploaded to the 2nd Year HTS website and one hard copy is to be submitted to the Undergraduate Coordinator on the term submission date.

Essay Tutorials:
Tutors will provide individual tutorial times for each student during the term. One tutorial is mandatory and one is optional. Times and dates of the tutorials will be determined between the seminar tutors and the students. Students are also encouraged to meet with the course lecturer as well to discuss essay topics.

HTS Writing Prize
This year the History and Theory Studies programme has launched a series of writing prizes throughout the school and includes an Intermediate School (2nd and 3rd Year) award. Essays will be selected by the HTS staff that shows exemplary writing skills, critical insight on topics and original content, both in writing and in graphic representation. The selected authors will be asked to present their work to a panel of AA tutors and invited critics from outside the school in an open jury. The jury will then select winners for the prizes.

Website:
A website for all 2nd Year HTS courses will be launched and will allow sharing of reading material, graphic material and will announce HTS events throughout the school.
http://aasecondyearhts.wordpress.com/

Course Field Trips:
Field for 2nd Year HTS are tied into the writing and visual assignments and will be self-initiated by the student in order to complete the assignment. Locations and tasks will vary from student to student. Students are encourage to visit these locations in London together in small groups.
Term 2
Assignment #1: Essay Topic Selection and Photographic Image Supplement

- Submission Due: Week 2, January 22nd
This week the assignment consists of two related parts. First, each student is to present a topic that they intend to research and write on for the course essay submission. The essay topic is to be 100-200 words that explains the topic, what texts, buildings, architects, artists, etc. you intend to investigate, and how it relates to one of the course lecture topics (an example will be provided in seminar). Second, the written aspect is to be supplemented with one photographic image of your choice that relates to the topic.

Assignment #2: Essay Abstract and ‘Object’
Submission Due: Week 4, February 5th
This is an exercise composed of text (a 500 words abstract) and an object – to be the focus of your essay or a supporting character.

- Abstract text:
  Expand on the previous topic text, with the main objective being to state the argument, thesis or series of questions you intend to pose throughout the essay.

- Object:
  A generic term that can mean a variety of things – text, image, building, film, music, etc... It often helps to find something that simply interests you and run on a hunch (intuition). Beginning at a defined point, on the specific object, and then questioning this, allowing larger theoretical interests to be applied in a more structured way.

Assignment #3: Revision of Abstract
Submission Due: Week 6, February 26th
This is a revision of your essay abstract, or potentially a first draft, to be worked through with your tutor.

Assignment #4: Essay Presentation
Submission Due: Week 7, March 5th
The final essay assignment will be an individual presentation to the class. It is based on a format that compels the presenter to focus on the most important aspects of the essay topic. Each student presents the following: 10 graphic slides, discussing each slide for 20 seconds (approximately 30-40 spoken words) for an overall presentation of 3 minutes and 20 seconds.

The 10 visual slides and accompanying verbal presentation are to construct your argument in a clear and concise manner eliminating any tangents or non-essential elements – just the meat and bones of the thesis.
This is based on the PechaKucha format of presentation. A demonstration by the tutor will be presented in class to for clarification.

**Final Essay Submissions:** Friday 20th March, 1:00pm

The final submission is a 3,000 word academic essay. Please see the Complementary Studies Handbook, which provides information on how to construct a proper academic essay as well as proper referencing, footnoting and research methods. One digital copy is to be uploaded to the 2nd Year HTS website and one hard copy is to be submitted to the Undergraduate Coordinator on the term submission date.

**Essay Tutorials:**
Tutors will provide individual tutorial times for each student during the term. One tutorial is mandatory and one is optional. Times and dates of the tutorials will be determined between the seminar tutors and the students. Students are also encouraged to meet with the course lecturer as well to discuss essay topics.

**COMPREHENSIVE READING LIST:**

**Term 1**

Session 1: ARCHITECTURE
Vitruvius, Ten Books on Architecture; Alberti, L.B., On the Art of building in Ten Books;
Laugier, Marc-Antoine, An Essay on Architecture;
Durand, Jean-Nicolas-Louis, Précis of the Lecture on Architecture;
Le Corbusier, Towards a New Architecture; Gideon,
Sigfried, Space, Time and Architecture: The Growth of a New Tradition;
Venturi, Robert, Complexity and Contradiction; Koolhaas, Rem, Delirious New York

Session 2: DESIGN
Required Seminar Readings:
Koolhaas, Rem, ‘Junkspace’, in Chuihua, Judy Chung; Inaba, Jeffery; Koolhaas, Rem;
Suggested Seminar Readings:

Session 3: THE ARCHITECT
Required Seminar Readings:
Suggested Seminar Readings:

Session 4: PROFESSION
Required Seminar Readings:
Suggested Seminar Readings:

Session 5: ARCHITECTURAL HISTORY
Required Seminar Readings:
Suggested Seminar Readings:

Session 6: RELIGION
Required Seminar Readings:
Suggested Seminar Readings:

Session 7: POWER
Required Seminar Readings:
Suggested Seminar Readings:

TERM 2:

Session 1: THE HOUSE
Required Seminar Readings:
Banham, R. 'A Home is not a House', in Art in America, Number 2, April 1965. Drawings by François Dallegret.
Suggested Seminar Readings:
Session 2: THE ENGINEER AND INFRASTRUCTURE
Required Seminar Readings:

Suggested Seminar Readings:

Session 3: NATIONAL IDENTITY AND ARCHITECTURE
Required Seminar Readings:

Suggested Seminar Readings:
Bunschoten, Raoul, ‘Stirring the City’, OASE Journal, No. 48, p.72-82, 1998

Session 4: POLITICAL IDENTITY AND ARCHITECTURE
Required Seminar Readings:
Debord, Guy, ‘The Culmination of Seperation’, in Society of the Spectacle, Rebel Press,

Suggested Seminar Readings:

Session 5: THE MONUMENT
Required Seminar Readings:

Suggested Seminar Readings:

Session 6: ARCHITECTURE WITHOUT BUILDING
Required Seminar Readings:

Suggested Seminar Readings:
‘Power of Ten’, Film Documentary by Ray and Charles Eames, 1968

Session 7: THE LIFE AND DEATH OF ARCHITECTURE
Required Seminar Readings:
Hugo, Victor, The Hunchback of Notre Dame,
Suggested Seminar Readings:
Forster, Kurt, ‘Monument/Memory and the Mortality of Architecture’, p. 25-35 in Oppositions Reader
HISTORY AND THEORY STUDIES THIRD YEAR: CATEGORIES OF ARCHITECTURE
Terms 1 and 2

Course Lecturer: MOLLIE CLAYPOOL and RYAN DILLON
Course Tutor: SYLVIE TAHER
Teaching Assistants:
SUSAN CHAI
NERMA CRIDGE
MANOLIS STAVRAKAKIS

Categories of Architecture: the Birth of an Architectural Idea

This year 3rd year HTS will consider the way in which architectural positions are constructed and argued for through a series of diverse pairings of buildings, projects and books with different forms of artistic media focusing on twentieth and twenty-first century examples. Every two weeks a broad category of media that includes theatre, music, painting, photography, film, sculpture and digital is introduced as a means of structuring the discussions in lectures and seminars. Two lectures will be delivered per category with the goal to provide students with two different interpretations of the same media within the discipline of architecture. The forms of media selected are examples of a movement, style or avant-garde that had varying degrees of influence on the architectural project, building or text it is being compared to.

For the architectural projects and buildings included in this series many are of a smaller scale, i.e. houses, and, simultaneously, are early works of their corresponding architects and designers. This is to emphasise the role of how different forms of media enabled the generation of cohesive architectural positions in the early stages of the architect’s careers that ultimately established the foundation of their future work. The aim is to help students understand the auxiliary influences on architecture that have had ramifications within practice and criticism in which different schools of architectural thought have emerged.

The course is presented in two parts – lectures and seminars – which are given weekly for 1 hour and 2 hours respectively. The seminars are an integral part of the course, and operate as a platform for discussion in which both the lectures, readings and submission development will be discussed in an open dialogue. These discussions should guide students in the development of their essays, within which the essay topic, structure and style should all be considered. Ultimately, the seminar aim to ensure that students learn how to analyse, interpret, argue for and apply texts and readings of buildings, both within their own architectural thinking and projects.

Seminars Thursday, 12.00-1.00pm
Lectures Thursday, 10.00am-12.00pm

Attendance
Attendance to the lectures and seminars is compulsory. Attendance is taken in both lectures and seminars by the seminar tutors. Repeated absence from the course can affect a student’s final mark for the course.
Readings
All assigned readings are to be read by each student. Each week the readings will be made available on the 3rd year HTS website by the tutors, and a photocopy of the reading will be available in the library on the HTS 3 programme book shelf. The website is aathirdyearhts.wordpress.com and the password is ‘readings’.

Marking
Marking framework adheres to a High Pass with Distinction, High Pass, Pass, Low Pass, Complete-to-Pass system. Poor attendance can affect this final mark.

Submission
A 3,000 word academic essay each term (not including references, bibliography, etc.) is a requirement for the course. Students are expected to develop the essays in the seminars, in discussion and agreement with the seminar tutors, throughout the term. Students are expected to present the topic of their essay in seminars.

Term 1:

THEATRE

Session 1 – Thursday, 9th October
Josephine Baker House, Adolf Loos + Banana Dance, Josephine Baker

Session 2– Thursday, 16th October
Fun Palace (1961), Cedric Price + Theatre Workshop, Joan Littlewood
+ Littlewood, Joan, Joan’s Book: Joan Littlewood’s Peculiar History as She Tells it, Methuen Publishing Ltd, 1994.

MUSIC

Session 3 – Thursday, 23rd October
The Supine Dome (1948), Buckminster Fuller + 4’33”, John Cage

Session 4– Thursday, 30th October
Philips Pavilion (1958), Le Corbusier + Poème électronique, Edgard Varèse

AA Open Week – Thursday, 6th November

No classes

**PAINTING**

Session 5 – Thursday, 13th November

**Wall House (1973), John Hedjuk + Le Violon / Verre et Journal, Juan Gris**


Session 6 – Thursday, 20th November

**Rietveld Schröder House (1927), Gerrit Rietveld + Composition Red, Blue and Yellow, Piet Mondrian**


**PHOTOGRAPHY**

Session 7 – Thursday, 27th November

**Kaufmann House (1946), Richard Neutra + Julius Shulman: Modernity and the Metropolis (2006), Julius Shulman**


**Submission development**

There will be tutorial times with seminar tutors provided in the weeks dated 1st to 5th December and 8th to 12th December. The final submission for Term 1 is due by 1.00pm on 12th December 2014.
Term 2:

PHOTOGRAPHY (cont.)

Session 1 – Thursday, 15th January

**Slow House (1991), Diller + Scofidio + Animal in Motion, Eadweard Muybridge**

FILM

Session 2 – Thursday, 22nd January

**Eames House, Charles and Ray Eames + Power of 10, Charles and Ray Eames**
+ Power of Ten (film), Charles and Ray Eames, found: http://www.youtube.com/watch?v=0fKBhvDjuy0

Session 3 – Thursday, 29th January

**Manhattan Transcripts (1976-81), Bernard Tschumi + Battleship Potemkin, Sergei Eisenstein**
+ *Battleship Potemkin* (film), Eisenstein, Sergei, Goskino (Distributor), 1925.

SCULPTURE

Session 4 – Thursday, 5th February

**Embryological House (1997-2001), Greg Lynn + Variations of Incomplete Open Cubes (+ others), Sol Lewitt**

AA Open Week – Thursday, 12th February
No classes

Session 5 – Thursday, 19th February

**Gehry Residence (1978-91), Frank Gehry + Monogram (1955-59), Robert Rauschenberg**
Session 6 – Thursday, 26th February

**Earth Moves (1983), Bernard Cache + The Fold, Paul Klee**

Session 7 – Thursday, 5th March

**Hybrid Muscle (2003), R&Sie... Architects + Clockwork Orange (1971), Stanley Kubrick**
+ Roche, François, ‘(Science) Fiction & Mass Culture Crisis’ in Spoiled Climate: R&Sie...Architects, Ruby, Andreas & Durandin, Benoît (editors), Birkhäuser, p. 56-59.

**Submission development**
There will be tutorial times with seminar tutors provided in the weeks dated 9th - 13th March, 16th to 20th March and 23rd to 27th March. The final submission for Term 2 is **due by 1.00pm on 30th March 2015.**
“During the long years of the war we have been heartened and inspired by the thought of the chance we are going to have to rebuild our bombed cities, to sweep away the slums and create new towns.”

(Editorial, AA student journal: ‘PLAN’, No.1, 1948.)

This course will explore the post 2nd World War climate of idealism which engendered more than two decades of London’s public housing projects. We will consider how such optimism and utopian planning translated into a complex reality and will question the standard accounts of what, by the late 1960s, was popularly perceived as a dream gone sour - a descent into dystopia.

Taking an investigative, archive-based approach the course will encourage students to look beyond the usual architectural history texts and utilise a broad range of social, economic and political sources - embracing film, oral history, propaganda materials, trade leaflets, contemporary newspapers, magazines and popular music. In addition, students will work with archival records, surveys and publicity material from institutions as diverse as the Mass Observation Archive, Local Authority Archives, the LCC’s Architect’s Department, the RIBA, the AA and the CPGB, together with recently released material from the Ministry of Information and MI6.

There will be an emphasis on archival research techniques and students will be encouraged to participate in an oral history programme documenting AA alumni active in London of the 1950s-60s. The course will culminate in students carrying out programmes of archival research across sets of primary sources of their choice, producing a piece of original piece of writing.

Submission Requirements
The course submission will be in the form of a 3000 word essay, however, students will also be expected to prepare a 20min group presentation and participate in the oral history programme.

Session 1: ‘Your Britain: Fight For It Now!’ (1942 series of propaganda posters by Abraham Games)
This session will serve to introduce basic archival theory and consider the historical development of archives and the nature of archival research. We will then examine the context of a war-time Britain and the various groups working on plans for a post-war reconstruction. Finally, we will question the oft held assumption that there was a sea-change in popular opinion, from c1942 onwards, towards a more socialist vision of a post war Britain. We will look at a range of sources including official reports and propaganda material from the Ministry of Information, the Mass Observation Archives and the Army Bureau of Current Affairs.
Session 2: ‘Let Us Face The Future’ (Labour Party Manifesto, 1945)
This session will be dedicated to the immediate post war years, leading up to the Festival of Britain in 1951. Years which saw the first Labour majority government in power, the construction of the Welfare State and the passing of the historic Town and Country Planning Act. We will trace the first efforts to tackle the housing crisis in London and will question some of the ideas motivating architects, planners and politicians in their pursuit of a ‘New Jerusalem’. One of the main sources examined will be oral history recordings from the National Sound Archives and from the AA’s own Archives. The first group of students will also present their assessment of the value of oral histories as historic documents.

Session 3: ‘300,000 homes a year’ (Conservative election promise, 1951)
We will focus here on the pioneering work of the London County Council Architect’s Department, through the 1950s, from the ‘soft’ v ‘hard’ factions at work in the landscaped parkland of the Roehampton Estate, to the rolling out of London’s first inner city high-rise blocks. We will look at ideological debates within the architectural profession, the impact of New Brutalism and investigate the apparent rejection by the mid 1950s of the high-rise by a new generation of AA students. In contrast to such formal debates we will examine the many different pressures and incentives at work on Metropolitan Borough Authorities and the implications of their slum clearance policies. We will, in addition, take as a case study the work of Margaret Willis a resident sociologist employed by the LCC in the 1950s. The second group of students will present their assessment of the Mass Observation Archive as a historical source.

Session 4: ‘Housing List Long... Building Land Short?’ (1962, Wates advertisement aimed at Local Authority officers)
Here we will examine issues of new technologies and materials, of density, light and open space, looking at the impact of the Parker Morris Report of 1961 and the significance of local politics and the complex system of subsidies. We will investigate the boom in industrialised, system-builds which, from c1962, intruded higher and higher on the London skyline and will consider alternative experiments such as Patrick Hodgkinson’s Brunswick Centre and Neave Brown’s plans for the Fleet Road and Alexandra Road estates. This week’s analysis of primary sources will consist of a survey of the advertisements and trade literature produced by the handful of construction companies which dominated London’s public housing market. The third group of students will present on film sources held at the BFI, regional film archives, Pathe Newsreels and other repositories.

DURING TERM 1 OPEN WEEK:
AA Cinema: Screening of ‘Utopia London’ (dir. Tom Cordell, 2010): Film rehabilitating 1950s and 60s mass housing schemes in London. It has very interesting use of oral histories with AA trained architects. This is a non-compulsory event.

Session 5: The Fall
This week documents The Fall. We will explore possible reasons behind the increasing problems on public estates experienced in the 1960s and the trend away from high-rise development that was visible well before the catastrophic collapse of Ronan Point in 1968. We will re-examine the subsequent media frenzy which characterised public housing as a dystopian nightmare, a major policy failure tainted by megalomania, corruption and shoddy standards. Alongside contemporary reportage, film archives and audio we will examine how novels, films and popular culture have worked to shape popular opinion and assumptions.
The fourth group of students will present a survey of sources available for a case study of public housing in Stepney.

**Session 6: Visit to the National Sound Archives**

Based within the British Library, the National Sound Archive has the UK’s largest collection of audio recordings, including a real treasure trove of oral histories of architects, recorded from the 1980s to the present. We will be talking to two of the curators of the ‘Architects’ Lives’ series and will discuss practical and theoretical issues relating to undertaking oral history recordings. This is intended as a precursor to the oral history programme students will be participating in.

**Session 7: Utopia On Trial**

This final week will be used to bring the story of public housing closer to the present; investigating the impact of Alice Coleman’s controversial work with the Land Use Research Unit at Kings College in the 1980s and outlining the Conservative Government embrace of market forces, privatisation and the sale of Council Houses. We will review the previous weeks’ discussions and attempt to link together broad themes and arguments. It will also be an opportunity to provide guidance on research techniques and sources for students’ essay submissions.

**Selected Bibliography**


Association of Building Technicians. *Homes For People*, 1946.


Labour Party. *Housing and Planning after the War*, 1943.


Mass Observation. *An Enquiry into People’s Homes*. Published for the Advertising Service Guild, 1943.


Edward Bottoms

Edward Bottoms has been the Archivist at the Architectural Association Archives since 2009. He has a History Degree and a Masters in Architectural History from the University of East Anglia and Archives Administration at Aberystwyth University. He has published on a wide range of subjects including portraiture, art collecting, architectural museums, 20thC architectural publishing and the history of architectural education.

‘PROPS’ AND OTHER ATTRIBUTES: ON EXHIBITION-MAKING AND FASHION

JUDITH CLARK
Fridays 2pm to 3.30pm

Props and attributes are used not only in theatrical performance but also in Renaissance painting. They clarify and simplify the narrative of the painting. Placed next to a figure they act as both caption and anecdote. They are essential to, but also disrupt, the logic of the picture. Looking at 16th century painting and treatises on the Art of Memory as a starting point, the course wonders how these can be used within current exhibition-making practice and in particular in relation to exhibiting fashion.

The course will be organized as follows: Each week we will read a set text and/or look at a painting as a way of exploring the theory and practice of exhibition-making. In the seminars we will be making connections between the history of objects and their possible staging, and the way in which display is itself a form of historical recontextualisation.

Weekly Sessions
Week 1 - Introduction
Week 3 - Populating space
Week 4 - Exhibiting Fashion
Week 5 - Reading Week
Week 6 - Designing routes and returns
Week 7 - Design tutorials
Week 8 - Student Presentations

Reading List:
Bal, Mieke, Narratology. Introduction to the theory of Narrative, Toronto, 1997
Cicero (att.) Rhetorica ad Herennium, Loeb Library Classics
Clark, Judith; Spectres, When Fashion Turns Back, V&A Publishing 2004
Hall, James; Dictionary of Signs and Symbols, John Murray, 1989
Mack, Peter; A History of Renaissance Rhetoric 1380 - 1620; OUP, 2011
Bruce W. Ferguson, Reesa Greenberg, Sandy Nairne, Thinking About Exhibitions, Routledge, 1996
Yates, Frances A.; The Art of Memory, Penguin, 1966

Submission: Students will be required to submit the schematic design and rationale (3,000 words) for an exhibition of 12 objects. At least 6 of the objects need to be articles of clothing. In the final session students will give individual 10 minute presentations.

Clark has curated major exhibitions at the V&A in London, Mode Museum in Antwerp, Boijmans van Beuningen, Rotterdam and Palazzo Pitti, Florence. Recent exhibitions include The Concise Dictionary of Dress (with Adam Phillips) commissioned by Artangel; Diana Vreeland after Diana Vreeland at Palazzo
Fortuny, Venice, and Chloe. Attitudes (Palais de Tokyo, Paris 2012). In July 2012 she opened the first museum of Handbags in Seoul, South Korea. Recently published with Yale University Press is Exhibiting Fashion: Before and After 1971, co-authored with Amy de la Haye. Clark runs the MA Fashion Curation at UAL and is Director of the research Centre for Fashion Curation at UAL.

**BIOPOLITICS**

**MARK COUSINS**

Mondays 11.30am to 1pm

This course examines a contemporary and radical reorganisation of how we think about power and society. In effect, it starts with the later work of Michel Foucault and is then developed in different directions over four decades by other scholars. It has already had a massive intellectual effect upon various disciplines, but has not greatly been used in the analysis of urbanism and the practice of architecture itself. This is strange since a biopolitical account of the history of urban development in the past two centuries is one which overthrows many of the political and theoretical approaches to the city.

The course will introduce these themes and texts in order to make the arguments intelligible and useful. It will concentrate upon the questions of urbanisation in the last two centuries and place a particular emphasis on how we understand that the term *housing* as opposed to the *house*. These themes will be related to the biological character of the city, the crisis in the ecology of the city in the first half of the nineteenth century and the regulations which were introduced to intervene in the city at the level of health and indeed of life itself.

Students are encouraged to find an issue within urbanism or architecture which they can analyse with the tools acquired during the course. They are expected to formulate these by about the middle of the term and to present their proposals both in tutorials and in seminars.

**Lectures:**

1. **Orthodox accounts of law and politics:** Focusing on the concept of sovereignty and its critique.
2. **Orthodox accounts of urbanism and its history:** What is the urban as opposed to the city?
3. **The early nineteenth century crisis of the city:** What was the objective of urban reform?
4. **The emergence of biopolitics:** The work of Michel Foucault and Giorgio Agamben
5. **The nature of regulation and its relation to the individual:** The administration of identities
6. **The house as the black hole of architecture:** The role of the domestic
7. **Housing:** Building as an administrative practice

**Bibliography:**

- Agamben, Giorgio: *Homo Sacer: Sovereign Power and Bare Life*
- Agamben, Giorgio: *Remnants of Auschwitz*
- Esposito, Roberto: *Bios: Biopolitics and Philosophy*
- Foucault, Michel: *In Power: Essential Works of Michel Foucault Vol. 3*
- Foucault, Michel: *Society Must Be Defended*
- Foucault, Michel: *Security, Territory, Population*
Submission requirement: students will be required to write a 3,000 word paper on a topic related to the course content; fully agreed in advance with the course tutor.

Mark Cousins is Director of History and Theory at the AA. He was educated at Oxford and the Warburg Institute. He has been Visiting Professor at Columbia University and is now Guest Professor at South East University in Nanjing, China.

TALK THE WALK
RYAN DILLON
Wednesdays 3.30pm to 5pm

Georges Perec often and excitedly referred to Paul Klee’s thought ‘what to see when you see nothing?’ The course will explore this question through an immersive exploration of the city to address Perec’s call to unearth the ‘infraordinary’ – a desire to understand ‘the ordinary, the background noise, the habitual.’ In ‘Approaches to What?’ the 1973 essay penned by Perec he openly questions our thirst for the extraordinary, ‘the historic, significant and revelatory’ while seemingly ignoring the ‘essential’. This attitude spawned a series of urban projects such as Lieux and An Attempt to Exhaust a Place in Paris (later influencing the work of Sophie Calle and François Bon) locating the artist within the grime of the city documenting our everyday environment and movements, and these will be our prompt. Therefore we Walk.

with Poe we Walk. This course will walk the city of London. with Rousseau we Walk. We will observe and document through photography, hand written notes and other media as determined by the students. with Atget we Walk. Our aim is to understand the everyday flows of the city that are its foundation, but lay beneath the extraordinary events that dominate our headlines. with Calle we Walk. Constraints will dictate our walks – a series of rules both arbitrary and personal will lead us through the vibrant and meandering streets and squares of London. with Debord we Walk. These walks will result in a series of individual projects that aim to challenge our understanding of the ‘everyday’ and to see ‘something’ where there was once believed to be ‘nothing.’ with Varda we Walk. We will question the understanding of object- and specialist-driven art and explore Foucault’s question as to why one’s life cannot become a work of art. so lets Walk

Session 1
An Infraordinary Understanding of the City
The Urban Nomad: A Political Beast
In Georges Perec’s 1973 essay entitled ‘Approaches To What?’ he openly calls for his readers to ‘question the habitual’ and the banal, the common and to finds ways to describe it. This was in stark contrast to the thirst of society enthralled by the extraordinary, ‘the front page splash’ of tragic plane crash-type events. Today, as wars blanket our world, Malaysian Airlines planes disappear and are shot down and national disasters dominate our newspapers, Twitter feeds and BBC news programmes, this
essay is once again relevant. A review of Paul Virilio’s interview about his friend Perec will explain that this desire to understand the infraordinary was, at its foundation, a political endeavour.

**Key Texts:**

 Session 2

**A Literary Revolution: The OuLiPo and Constraints**
The lecture will introduce students to the literary group OuLiPo (Ouvroir de Litterature Potentielle), its founder Raymond Quenau and the members of this clique such as Georges Perec, Jacques Roubaud, Italo Calvino and Harry Matthews. The discussion will highlight the role of constraint within these author’s writings and how the rules were developed as both literary and mathematical devices while understanding how this method was in direct opposition, both literary and socio-politically, to other authors of the time such as Roland Barthes, Jean-Paul Satre and Alain Robbe-Grillet.

**Key Texts:**

 Session 3

**The Urban Project: In Written and Visual Form**
With the advent of the easel and the camera the space where art is made extended beyond the walls of the studio and into the external world. Our environment and surroundings become the studio as we interact and document the world around us. Jean-Jacques Rousseau’s *Reveries of a Solitary Walker* and the Paris street life photographs of Eugène Atget will provide the historical underpinnings of more current works delivered by Georges Perec, Francois Bon, Sophie Calle, Nikki S Lee and Jacques Réda.

**Key Texts:**
- Perec, Georges, Excerpt from *Lieux* in *AA Files*, No. 45/46, (Winter 2001), Architectural Association, 2001, p. 34-41. Note: there are more translated excerpts from *Lieux* in this *AA Files*

 Session 4

**The Protagonist and the Submissive**
Using Roland Barthes essay, ‘The Death of the Author’ as a barometer to evaluate a series of projects this session will put forth multiple possibilities for the role of the author (architect) as operator, reader, observer or object. An in-depth analysis of the working relationship of Paul Auster and Sophie Calle, notably the *Double Game* project, will be the focal point in which the role of constraint moves beyond
literature and into the physical world of an urban art project. Linking this topic to architecture the course will also review Eisenman’s House VI and Tadao Ando’s Row House Sumiyoshi with the aim to introduce the variety of different ways constraints are constructed and who enforces them.

**Key Texts:**

**Session 5**
**Turning Your Life into a Work of Art**
This talk will explore Michel Foucault’s query, ‘Why should the lamp or the house be an [art] object, but not our life?’ by looking at how artists implement their personal life, their ageing and in some cases their death, and how one ultimately turns their entire life into a work of art. From Perec’s *La Vie mode d’emploi* (Life: A User’s Manual) and many of his earlier works such as *La Disparition* (A Void) to documentarist Agnes Varda, notably the film *Les Glaneurs et le glaneuse* [*The Gleaners and I*] the aim is understand the role of the artist as a character within their own work.

**Key Texts:**

**Session 6**
**Exhausting a Project Rather than an Aimless Drifter**
In an attempt to understand the differences between the unplanned drifting of the Situationalist *dérive* and the highly constrained urban explorations of the OuLiPians, this session will investigate Guy Debord’s *Naked City* in parallel to Georges Perec’s *Lieux* (*Spaces*) and *An Attempt to Exhaust a Place in Paris*. In addition we will look at the idea of exhausting a project through the work *La Vie mode d’emploi* (Life: A User’s Manual) and the lifelong pursuit of Roman Opalka’s ‘1965 / 1 – ∞’ series, which brings to the discussion Freud’s concept of the life drive (Eros) and death drive (Thanatos).

**Key Texts:**
- Andreotti, Libero & Costa, Xavier (editors), Theory of the Derive and Other Situationist Writings on the City, ACTAR, 1996.

**Session 7**
**The Removal of an Urban Facade: The Everyday Life of a Building**
After many discussions of projects and texts that observe and document the streets and spaces of the city, this session will explore the inside of urban buildings, analysing Perec’s account of experiencing a
Frank Lloyd Wright prairie house and his masterpiece La Vie mode d’emploi (Life: A User’s Manual). The talk will cover the project’s constraint systems and data collection of material that was generated from everyday events, movements and happenings and used as a writing machine to construct the novel. The aim is to allow students to understand how to describe movement and events in space through text and ultimately how graphically this can emerge into drawing.

**Key Texts:**

**Essay Tutorials**
Students have the option to sign up for an essay tutorial prior to the submission in Week 11.

**Submission Requirements**
Students will be asked to submit a three-part project as part of the course. The three parts include:

1. **A Walk**
   This portion of the project will include the documentation of observations during a constrained walk through the city focusing on cataloguing a specific everyday typology within the city (shop storefronts, street signs, market stalls, building types, or a demographic of people, etc).

2. **A Public Space**
   This portion of the project will include the documentation of observations while sitting within a public space in London, collecting material on the buildings, and structures that physically enclose the space and the people moving through that animate it.

3. **A Constrained Piece of Writing**
   A short constrained piece of writing on a building or space in London that was the location of a public, political or social event during the past five years. The aim is to document the space, its surroundings and its environment that housed the event. These constrained texts will be collected into a course journal at the end of term.

**Ryan Dillon** received his Bachelor of Architecture at Syracuse University School of Architecture and his MA from the Histories and Theories programme at the AA. Currently he is Unit Master of AA Intermediate 5 in the AA and teaches in the Architecture and Urbanism graduate programme (DRL), where he serves as Programme Coordinator. He has also taught at the University of Brighton. He is a designer at EGG Office and has previously worked at Moshe Safdie Architects on projects such as the Khalsa Heritage Complex and the Peabody Essex Museum.
The Robinson Institute is a fictional research organisation imagined as an experimental settlement in a disused limestone quarry in Oxfordshire. It continues the work of a fictional researcher, now absent, whose explorations of the UK’s landscape have been the subjects of three films, the most recent of which, Robinson in Ruins (2010), was prompted by a concern with a ‘problem’ of dwelling and led to the current establishment in the quarry.

Students are invited to respond to questions arising from the film and one of its predecessors, The Dilapidated Dwelling (2000), which attempted to address the ‘problem’ of the dwelling – domestic architecture. The two films will be shown during the seminar series.

In 1944, in exile in the United States, Theodor Adorno wrote that ‘dwelling, in the proper sense, is now impossible’. While we should probably understand his aphorism in the context of its time and circumstances, it raises the question of what ‘dwelling, in the proper sense’ might be. The most readily available formulations appear to derive from peasant agriculture, a way of life largely absent from England for at least 200 years as a consequence of land enclosure and the displacement of the rural population, processes that continue elsewhere.

The narration of Robinson in Ruins begins: ‘When a man called Robinson was released from Edgcott open prison, he made his way to the nearest city and looked for somewhere to haunt’. The film is the document of an unplanned perambulation through a part of southern England not always sympathetically viewed, arriving after ten months at the location of several unusual historical events and the limestone quarry in which the ‘experimental settlement’ is subsequently established.

The Dilapidated Dwelling (which also involved visits to former limestone quarries) was concerned with dwelling primarily in terms of the production and particularly the replacement of domestic architecture.

Five seminars based on the two films will be followed by a further two in which we will speculate about what might constitute an experimental settlement and how it might be constructed.

**Session 1:** Dwelling, ‘in the proper sense’
**Session 2:** The agricultural landscape
**Session 3:** Historical events
**Session 4:** ‘What does it mean to live in a culture that finds it so difficult to produce new domestic architecture?’
**Session 5:** Dilapidated Domesticity
**Session 6:** Critique of the city
**Session 7:** Building construction

**Bibliography and references:**


Mike Davis, Planet of Slums (London: Verso, 2006).


Dominic Stevens http://www.irishvernacular.com

Material Flows http://www.materialflows.net/visualisation-tools/mfa-map

The Green New Deal http://www.greennewdealgoup.org/

Further reading

Patrick Keiller, The Possibility of Life’s Survival on the Planet (London: Tate, 2012).


http://thefutureoflandscape.wordpress.com

**Submission requirement:**

Each student is asked to formulate a question arising from the seminars’ discussions, to be explored as the subject of a 3000-word essay, which may but need not be illustrated.

**Patrick Keiller** studied architecture at UCL and fine art at the RCA, both in London. His most recent works are the film Robinson in Ruins (2010), the exhibition The Robinson Institute (Tate Britain, 2012) and the two books mentioned above as further reading, the first of which accompanied the Tate exhibition.

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MILAN XX: LA NEBBIOSA (The Misty)

ROBERTA MARCACCIO

Wednesdays 11.30am to 1pm

If Rome is the Città Eterna – the eternal historic city – then Milan is utilitarian, demolished and rebuilt according to the needs of the moment: a city in a state of conscious agitation.

Milan is the economic, productive and creative capital of Italy, internationally renowned for its design, fashion, publishing and media industries as well being the unofficial centre of political power. But this consciousness is rarely manifest in public projects or large scale interventions; rather it is rarefied in a myriad of initiatives, mostly commissioned by elites and power structures.

In analysing the history of Milan, one could talk of the “institutions” which have shaped it, but this term would have to be used in a wide and even contrary sense, to encompass both official and spontaneous organisations. The “official institutions”, such as schools, professional organisations at a national scale as well as the city itself (meaning the local government and public commissions), have showed an obstinate and systematical indifference towards new trends and schools of thought. In response, and sometimes in opposition, to the mechanism of these official and officially empowered organisations, have emerged a series of independent “institutions of tendenza” such as: magazines, galleries and informal associations.

Uniting both sanctioned and independently convened “institutions” under the same banner is a recognition of the sort of disorder has characterised Milanese culture of the XX century. It is in this
climate that interior design, product design, architecture, fashion and the fine arts have proliferated: thus relying on a distinctive net of relations that allowed the mobilisation of private money while favouring a certain cohesiveness of the creative elites and a fecund overlap (not without violent contrasts and heated debates) of different practices and experiences.

Despite this, Milan – and therefore a certain chapter of Italian cultural and architectural production – suffers a relative marginalisation within the Western canon. The result is a fundamental gap in the history of the Modern Movement, caused by the absence of certain key figures in Anglo-Saxon architectural discourse. By navigating the city’s recent history, this course will attempt to expose some aspects of the complex system of relations that have characterised the city over the course of the last century.

Before each seminar, some articles related to the themes addressed will be made available for the students. The latter will be required to respond to those texts after the lecture. A series of films set in Milan, from the below list, will also be shown every week:

FILMS

**Miracolo a Milano**, Vittorio De Sica, 1951  
**Rocco e i suoi fratelli** (Rocco and His Brothers), Luchino Visconti, 1960  
**Il posto**, Ermanno Olmi, 1961  
**La notte**, Michelangelo Antonioni, 1961  
**Teorema**, Pier Paolo Pasolini, 1968  
**Il caso Mattei** (The Mattei Affair), Francesco Rosi, 1972  
**Milano calibro 9** (Caliber 9), Fernando Di Leo, 1972  
**Io sono l'amore** (I am Love), Luca Guadagnino, 2009

WEEKLY BREAKDOWN:

1) Overview:  
This first lecture will act as a scenography for the course. As opposed to the dissolute city of Rome, Milan found itself to be the industrial and responsible ‘conscience’ of the country at the point of Italy’s unification. It has since progressively metamorphosed into a city of consummate commercialism and speculation. We will briefly trace the city’s history before moving through a closer overview of the twentieth century.

2) The avant gardes and Fascism  
As the birthplace of the Fascist Party, modern Milan is, in part, a product of the Fascist period. The city expanded to incorporate the vast industrial tracts that included both factories and workers’ housing districts. This lecture will touch on the relationship that the various avant-garde and emergent aesthetic currents (such as Futurismo, Novecentismo, Razionalismo) had with the regime.

3) Reconstruction: From the Spoon to the City  
In the overlap of creative practices and private agendas, Milan retained certain characteristics of the 19th century city. Yet, the Tabula Rasa offered by the war allowed for provocative ‘dialogue’ between the emergent and extant elements of the city. The lecture deals with the tussle between past and present, and the translation of scales between intimate domesticity and urban typology.

4) The Neoliberty Polemic  
In the years following the war, the notion of the city underwent a sort of crisis; how to repair its fabric while reconciling with the hyper-efficient impersonality of the International Style? This is concurrent
with the dissolution of CIAM and a general crisis in the faith in Modernism, articulated famously in the argument between Reyner Banham and the Milan-based architect and editor Ernesto Nathan Rogers.

5) Triennali
The scope of the Triennial Exhibition of Decorative Arts and Modern Architecture (1923 to 1996) was that of stimulating the relationship between industry, technical schools, art and society at large. Despite their ephemeral character, such experimental exhibitions managed to have an impact on more canonical expressions of architecture, therefore influencing the fabric of the city in a durable manner.

6) Metanopoli
Metanopoli is the "city of methane", a fully-formed district commissioned in 1955 at the outskirts of Milan by Enrico Mattei for the ENI workers. Its scale represents a shift from previous patterns of micro-interventionist development. This lecture will extend to touch on private/public commissions, INA Casa, Bicocca and contemporary enclaves.

7) Magazines
Italy publishes 44.8 percent of the world’s architecture and design publications and most of these are based in Milan. This lecture will present an overview of the importance of media to the formation of the city, extending to discuss the television and advertising industry, which has lately gravitated around the figure of Berlusconi.

RECOMMENDED READING LIST

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Publisher</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sparke, Penny,</td>
<td>Design in Italy: 1870 to the present.</td>
<td>New York: Abbeville Press,</td>
<td>1988</td>
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<tr>
<td>Foot, John; 2001;</td>
<td>Milan Since the Miracle: City, Culture and Identity.</td>
<td>Bloomsbury Academic,</td>
<td>2001</td>
</tr>
<tr>
<td>Kirk, Terry;</td>
<td>The Architecture of Modern Italy: Visions of Utopia, 1900-Present.</td>
<td>Princeton Architectural Press</td>
<td>2005</td>
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<tr>
<td>Ghirardo, Diane,</td>
<td>Italy: Modern Architectures in History</td>
<td>London: Reaktion Books</td>
<td>2013</td>
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Roberta Marcaccio is a writer and editor at Artifice, the architectural imprint of Black Dog Publishing. She is working with Shumi Bose on the translation into English of a selection of writings spanning the prolific career of Ernesto Nathan Rogers (1909–1969) – the famous Italian architect, editor, writer and educator – which will be published by AA Publications in 2015. She has studied Interior Architecture at the Politecnico di Milano and received her Masters from the AA.
Whether thought of as an invention or discovery, linear perspective certainly marked a great shift in the way space was viewed and represented. A quintessential component of the Renaissance, perspective can be seen as embodying the era’s new emphasis on logic and measurability, the importance of beauty and science. With a viewpoint that is subjective, no longer a gods-eye view, the Renaissance world is depicted from a position which could be anyone’s. Alongside this, the built world became not just buildings, but architecture, ‘designed’ by the newly formed profession of architect. Art, architecture, science, and life are indistinguishable from one another, and bridging them all is the ever-present structure of linear perspective: a vantage point by which to view the time.

Combined with the 15th century’s push to explore and exploit, this newly created perception of the world contributed to, and in some ways facilitated, a complete rethinking of cartography and eventually town planning in the New World and back home again in the Old.

Starting in the Renaissance, and continuing through Exploration, this class will also look into art and architectural practices of the 20th and 21st Centuries that carry on the study begun with Linear Perspective. From Duchamp’s playful investigations into the 4th dimension and his final constructed view, to Dan Graham and Robert Smithson’s study into site and structure, subject and object, these examples can all be grouped within a critical interest into the perception of the world, and how this is understood and visualized. Just as with linear perspective in the Renaissance, alongside the thought sit technologies. They support and at times drive forward this ongoing study. Through focusing on differing aspects in each session, we will develop a wider picture of the legacy started in the Renaissance, understanding a critical way of thinking through image making, and the relationship between technologies and what they help to produce.

Submission: The final submission for the seminar will be a visual project to be developed with the tutor – the equivalent of a 3,000 word essay. However, the submission of an essay, or combination, will be accepted on a case-by-case basis.

Course Sessions:

Session 1:
Filippo Brunelleschi: Introduction to Linear Perspective and the Renaissance.
Readings:
Samuel Y. Edgerton, Jr. The Renaissance Rediscovery of Linear Perspective (1975)

Session 2:
Leon Battista Alberti: The Grid – Imposing measurability and order.
Readings:

Session 3:
Gerardus Mercator: Projection, Cartography, exploration and new Colonial planning.
Readings:
Friedrich Kittler, Optical Media (2009)
John Reps, The Making of Urban America
Session 4:
**Marcel Duchamp:** Authorship, the Gaze, and the visual cone
Readings:
Thierry de Duve, *Definitively unfinished Marcel Duchamp* (1991)

Session 5:
**Dan Graham:** Redefining the subject and object.
Readings:
Michel Foucault, *The Order of Things* (1970)

Session 6:
**Robert Smithson:** Utopia, Mirroring, site and non-site
Readings:

Session 7:
**Guest artist talk:** A contemporary critical view into the themes addressed.
Readings:

Other readings:
Erwin Panofsky, *Perspective as Symbolic Form*
Hubert Damisch, *A Theory of /Cloud/*

**Alison Moffett** is a practicing artist originally from Tennessee. Since moving to London, she obtained an MFA from the Slade School of Fine art in 2004 and an MA in History and Critical Thinking from the AA in 2011. She is interested in the perceived world and how, through filters and rules, this is translated into a visual language. She is represented by Gallery Schleicher/Lange in Berlin.

**ARCHITECTURE AND THE MOBILE PHONE**  
**CHRIS TURNER**  
**Mondays 3.30pm to 5pm**

The number of connected mobile devices now exceeds the 7 billion humans on the planet. This course will look at how the mobile phone has rewired our brains, how they’ve changed the ways we behave, connect to and navigate the world. It will also make predictions about how mobile technology might look in the future.

Will Self compares our use of mobile phones to the way bats use sonar. How has the smartphone changed us, and our being in the world? What infrastructure makes this echolocation possible, and how does this technology transform architecture? How are its utopian or dystopian effects explored in visions of the near future in fiction and film?
The seminar, a laboratory to which students will be expected to contribute research, will interrogate issues around insularity and privacy, networks and security, navigation and interiority, addiction and subversion, from the London Riots to the Arab Spring.

Seminar schedule:
1. History: The Invention of the Mobile Phone
2. Anxiety: Privacy and security
3. Navigation: Telephonic space
4. Infrastructure: Social and architectural networks
5. Subversion: Riots and revolutions
6. Visions: Utopias and Dystopias
7. Conclusions: The future of communication

Advised Reading List:
Gary Shteyngart, Super Sad True Love Story, 2010
Spike Jonze, Her, 2014
Jon Agar, Constant Touch: A Global History of the Mobile Phone, 2003
Paul Levinson, Cellphone: The Story of the World's Most Mobile Medium, and How It Has Transformed Everything!, 2004
Peter Glotz, Thumb Culture: The Meaning of Mobile Phones for Society, 2006
Michael Bull, Sound Moves: iPod Culture and Urban Experience, 2007
Heather Horst, The Cellphone: An Anthropology of Communication Icon Magazine, special on the Mobile Phone, 106, April 2012

Submission requirement:
Students will be expected to research and make a short presentation on one of these themes and to produce a 3,000 word essay relating to the topic.

Christopher Turner is the editor of Icon magazine, and a regular contributor to the London Review of Books, Cabinet and The Guardian. He completed his PhD on the theme of disgust at the AA/London Consortium and is the author of ADVENTURES IN THE ORGASMATRON: HOW THE SEXUAL REVOLUTION CAME TO AMERICA (HarperCollins & FSG).

COMMANDING ARCHITECTURE: BETWEEN LIFE AND GOVERNMENT
THANOS ZARTALOUDIS
Mondays 2pm to 3.30pm

In this course we shall attempt to think architecture as an experience of thought and simultaneously as an experiment: a life. In between we shall propose are placed the practices, problems and, more generally, the ways of thinking of architecture. In doing so we will examine the thought of philosophers and architects in conjunction, paying particular attention to the differences, as well as the intersections between them. The central line of inquiry in this course is: how to think architecture in the situation in which we find ourselves?

The trajectory of architectural modernity, in particular, can be observed as a project of subject formation, as the moulding and production of subjectivity understood as a manageable life—that is, as a biopolitical instrument through which architecture, among else, produces zones of capture. What if architecture in its ‘original’ modern form (and perhaps even in its earlier inception) as the setting of limits and boundaries (necessitating, by definition, also the setting of their presupposed excess or outside) is structured as a juridical apparatus: a machine of capture and control, a command or archē (from the Indo-European “root” arkhein) of production, creation and form? "What is the archē of
architecture? becomes in this mode of thought, both theoretically and architecturally, a question of
significance, but as we shall also ask in this course: at what cost (for thought as much as for
architecture)? How can we think of the key architectural question of the so-called inside/outside and
the equivalent, in urban design, of private/public space, in this mode? What of the power of
architecture and what limits does it presuppose and encounter?

If architecture is to be thought questioningly as the encounter with problems that exceed their
architectural lines of formation, then it seems that it needs to be considered attentively that
architecture appears to occupy a place, which lies between what we could provisionally call two
experiences of architecture. On the one hand the architecture of dwelling, custom, habitus, ethos, ways
of living; and on the other hand the architecture of discipline, circulation, control, nomos, autonomy,
appropriation, institution, management. It seems, then, if our provisional hypothesis is true, that
architecture occupies its place between, what we can generally call, the intersection of life and
government of, what Michel Foucault has called, ‘humans and things’.

Hence in this course we shall encounter concepts, forms, practices, distinctions and problems, which we
shall think through genealogically and theoretically, while situating ourselves with and against the
contemporary spatial powers and architectures we happen to coincide with. We shall engage in
particular with thinkers such as Giorgio Agamben, Michel Foucault and Gilles Deleuze, as well as with
particular case studies of spatial strategies, architects and architectural tactics. The general schematic of
the course then is as follows: we shall trace the genealogical intersection of types of power, ordering,
forms of subjectivity or life, with architectural tactics in order to study what we shall call architectural
biopolitics.

Session 1
Daedalus and the Labyrinth: Nomos and Ordering
Where we raise preliminary questions as a way of introduction to the architectural, juridical and
philosophical genealogy of the conjunction of life and ordering (or government), with particular
reference to the Ancient Greek Polis. This session forms a provisional outline for the questioning that is
to unfold in the forthcoming sessions, whereby we set the plane upon which the genealogical line we
shall trace between forms of ordering, power and life in relation to modern architecture and the urban
form of territorialization folds and unfolds.

Readings:
Indra K. McEwen, Socrates’ Ancestor, An Essay on Architectural Beginnings, Chapter IV, Between
Movement and Fixity: The Place of Order, MIT, 1993, 78-120
Jean-Francois Pradeau, Plato and the City: A New Introduction to Plato’s Political Thought, University of
Carl Schmitt, The Nomos of the Earth in the International Law of the Jus Publicum, trans. G.L. Ulmen,

Session 2
Territorial Ordering: The Power of Form
Where we examine the historical-juridical-philosophical development of the notion of territory; we
establish the concept of power-plateau to identify the plane upon which the form of life that
territorialization produces is posed; and we focus on the notions of disciplinary and sovereign power in
their philosophical, juridical and spatial configurations with particular reference to the work of Michel
Foucault and related architectural paradigms.

Readings:
Stuart Elden, The Birth of Territory, Duke University Press, 2013, Chapter 2: From Urbis to Imperium, 53-
96.
Session 3
Biopolitical Power and the Spatial Nomos of Modernity
Where we revisit the work of Michel Foucault via Giorgio Agamben with regard to the structure of sovereign power, its relationship to biopolitical violence, its foundation in a state of exception, and its presupposition of the fiction of a homo sacer. In doing so we reflect on the modality of architecture in biopolitical ordering and we compare foundational structures in Ancient Greece and the Roman Republic. We, further, clarify the meaning of the term paradigm and the logic of the camp as ‘the biopolitical nomos of the modern’ while analyzing the juridical-architectural paradigms of what Agamben has called an inclusive-exclusion.
Readings:
Sven-Olov Wallenstein, Biopolitics and the Emergence of Modern Architecture, FORum and Princeton Architectural Press, 2008, 4-42.

Session 4
Oikonomia and Urban Government
Where we re-examine the genealogy of biopolitical ordering through the emergence of the concept of oikonomia (or the management of the household, oikos; as traced in Agamben’s work) and its architectural implications. Key aspects of urbanization such as autonomy, the growing indistinction of public and private space and circulation are re-examined in this guise.
Readings:

Session 5
Architecture as a Dispositif and the Logic of Control
Where we further the understanding of biopolitical-oikonomic ordering, architecture and government through the work of Foucault and Agamben with particular reference to the notion of the dispositif (apparatus) and we further their reflections by explaining the logic of control and the understanding of a dispositif in Gilles Deleuze. We ask – if architecture is a dispositif, how can architecture find a line of flight?
Readings:
Gilles Deleuze, ‘What is a dispositif?’, in Gilles Deleuze, Two Regimes of Madness, New York: Semiotext(e), 2007, 343-352.
Session 6

**Power and Urban Destituency**

Where we examine the notion of ordering power as derived from Aristotle to its Medieval Christian reconfiguration and the contemporary understandings of it in order to analyze the logic of power that is presupposed and produced in oikonomic ordering. We ask: Was God a defining archetype of the creator-architect in the West? How is urbanism structured as a form of government and what is the power of architecture? What would be a destituent, decreative, power of architecture? In doing so we shall examine the work of Cedric Price.

**Readings:**


Session 7

**Affirmative Architecture: Exodus, Use, Poiesis and Profanation**

Where we examine architectural archetypes of exodus from what is conceived as negative ordering, both ancient and modern, and suggest the notion of the affirmative architecture of an immanent life; and, more generalize analyze the problem of creating and using things. In doing so we shall examine the work of Rem Koolhaas.

**Readings:**


Extended Bibliography


Atkinson R, 2006 *Padding the bunker*: Strategies of middle-class disaffiliation and colonisation in the city, *Urban Studies*, 43 (4) 819--832


Bauman, Z., *City of fear, city of hope*, 2003


Galloway, K., Prison Town, USA, 2007
Gray, M and Wyly, E 2007 The Terror City Hypothesis, in Gregory, D and A Pred Violent Geographies: Fear, Terror, and Political Violence, New York:
Hage, G 1996 The spatial imaginary of national practices: dwelling -domesticating/beingexterminating, Environment and Planning D: Society and Space, 14, 4, 463-485
Levin, Thomas Y. Ctrl [space]: Rhetorics of Surveillance from Bentham to Big Brother, London: Verso.
Marcuse, P (2009) From critical urban theory to the right to the city. CITY 12, 2-3, 185-197.
Mitchell, D, 2003 The right to the city. New York: Guilford.
Sophie Body-Gendrot, Jacques Carré, Romain Garbaye (eds), A city of one’s own: blurring the boundaries between private and public. Aldershot: Ashgate.
Sorkin, M ed Indefensible Space: The Architecture of the National Insecurity State, New York: Routledge 233--257
Dr. Thanos Zartaloudis (Athens, 1975) is a lawyer, a writer and an academic. He has studied law and philosophy at the University of Kent, the University of Amsterdam and the University of London. He has published widely and has taught in many universities internationally and at the University of London, Birkbeck College for over ten years, while currently he researches and teaches at the University of Kent. His most recent book is *Giorgio Agamben: Power Law and the Uses of Criticism* (Routledge, 2011). He is currently finishing a book titled *The Idea of Justice* (EUP, 2015); and his long term research project and book is titled *The Use of Things: in law, art and architecture* (2017). He is the editor of a new book series titled *Encounters in Law and Philosophy* (EUP). His research in architectural theory and urban design lies at the intersections with history, philosophy and legal thought. His recent architectural collaborations are *Mechanism Of Suspension* (with Issaias, Vougia et al) and *The Urban Protocols of Athens* (with Antonas).

**DIPLOMA THESIS OPTION**
**SUPERVISED BY MARK CAMPBELL**

At the conclusion of the Diploma HTS seminar programme, Fourth Year students who would like to develop their research into an extended written thesis are invited to attend a series of seminars, group workshops and individual tutorials delivered by Mark Campbell.

Full explanation and registration for this process will take place on Friday 30th January 2015.

Once registered, Theses students are advised that the teaching and development sessions are held over Terms 2 and 3 and serve as an introduction to the thesis, exploring the rigorous nature of undertaking such a comprehensive scholarly work and assisting students in formulating a topic. Students then work towards the research and progression of the thesis over the summer months between the Fourth and Fifth Years. Following a series of individual tutorials throughout the term, the completed thesis must be submitted at the end of Term 1 of the Fifth Year, in line with the Fifth Year HTS requirements.
This course aims to provide an introduction to how the three core Technical Studies disciplines: structures, environment, and materials; are integrated in building design, and are directly connected to architecture. Students will discover how these three disciplines are not separate entities, but are different lenses through which to view the built environment.

The course will encourage the use of hands-on modeling as an analytical tool, helping students to understand how the manipulation of one technical aspect affects the overall design. We will explore four spaces in London, as catalysts, each having unique technical relationships. Using critical and creative thinking, students will activate a series of structural, environmental and material manipulations — or 'corruptions' — of these spaces. The students will analyse and evaluate the resulting outcomes both technically and spatially. Through an iterative process of modeling and re-modeling, students will gain an understanding of the fundamental principles of structures, environment and materials. They will understand the interrelationship between these disciplines as well as creatively exploring how Technical Studies can inform the design process. The course will include a series of lectures providing students with a sound qualitative understanding and appreciation of the fundamental principles which underpin structures, environment and materials.

**Session 1: Thursday 9th October**

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>10.00 – 11.00</td>
<td>Introductory lecture</td>
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<tr>
<td>11.30 – 15.00</td>
<td>Environment / Structure / Material site visit around British Museum</td>
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<tr>
<td>15.30 – 16.30</td>
<td>Introduction to base case spaces, and division of students into sub-groups</td>
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**Session 2: Thursday 16th October**

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<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>10.00 – 11.00</td>
<td>CORRUPTION 01 Environment / Structure / Materials lecture: BRIGHTER / LONGER / LIGHTER (full year)</td>
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<tr>
<td>10.00 – 11.00</td>
<td>CORRUPTION 01 Environment / Structure / Materials lecture: BRIGHTER / LONGER / LIGHTER (full year)</td>
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<tr>
<td>11.00 – 13.00</td>
<td>Student base case buildings presentations. Definition of corruption no. 1 (subgroups)</td>
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<tr>
<td>14.00 – 17.00</td>
<td>Studio development of corruption no. 1 + Tutorials (subgroups)</td>
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### Session 3: Thursday 23rd October

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<th>Time</th>
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<tr>
<td>10.00 – 11.00</td>
<td>CORRUPTION 01 Environment / Structure / Materials lecture: <strong>HOTTER / TALLER / STIFFER</strong> (full year)</td>
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<tr>
<td>11.00 – 15.30</td>
<td>Studio development of corruption no. 1 + Tutorials (subgroups)</td>
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<td>15.30 – 17.00</td>
<td>Presentation of Corruption no. 1 (full year)</td>
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### Session 4: Thursday 30th October

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<th>Time</th>
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<tr>
<td>10.00 – 11.00</td>
<td>CORRUPTION 02 Environment / Structure / Materials lecture <strong>LOUDER, LESS STIFF, SOFTER</strong> (full year)</td>
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<tr>
<td>11.00 – 13.00</td>
<td>Presentation of corruption no. 1. Definition of corruption no. 2 (subgroups)</td>
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<td>14.00 – 17.00</td>
<td>Studio development of corruption no. 2 + Tutorials (subgroups)</td>
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### Session 5: Thursday 13th November

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<th>Time</th>
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<tr>
<td>10.00 – 11.00</td>
<td>CORRUPTION 02 Environment / Structure / Materials lecture <strong>SWEATIER, HEAVIER, SHINIER</strong> (full year)</td>
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<tr>
<td>11.00 – 15.30</td>
<td>Studio development of corruption no. 2 + Tutorials (subgroups)</td>
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<td>15.30 – 17.00</td>
<td>Presentation of Corruption no. 2 (full year)</td>
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### Session 6: Thursday 20th November

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<th>Time</th>
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<tr>
<td>10.00 – 11.00</td>
<td>CORRUPTION 03 Environment / Structure / Materials lecture: <strong>WINDIER, SHALLOWER, FASTER or SIMPLER</strong> (full year)</td>
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<tr>
<td>11.00 – 13.00</td>
<td>Presentation of corruption no. 2. Definition of corruption no. 3 (subgroups)</td>
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<tr>
<td>14.00 – 17.00</td>
<td>Studio development of corruption no.3 + Tutorials (subgroups)</td>
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Session 7: Thursday 27th November

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<tr>
<td>10.00 – 11.00</td>
<td>CORRUPTION 03 Environment / Structure / Materials lecture: <strong>SUNNIER, DEEPER, MODULAR</strong> <em>(full year)</em></td>
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<tr>
<td>11.00 – 15.30</td>
<td>Studio development of corruption no.3 + Tutorials <em>(subgroups)</em></td>
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<tr>
<td>15.30 – 17.00</td>
<td>Presentation of Corruption no. 3 <em>(full year)</em></td>
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<tr>
<th>Recommended Reading List</th>
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<th>Materials</th>
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<tr>
<th>Structures</th>
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<tbody>
<tr>
<td>Addis (2007) <em>3000 years of design engineering and construction</em></td>
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<tr>
<td>Sandaker, Eggen, Cruvellier (2011) <em>The Structural Basis of Architecture</em></td>
</tr>
<tr>
<td>Engel, Rapson (2006) <em>Structure Systems</em></td>
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Submission Hand-In: Friday 12th December 2014:
Each group comprising three students, must submit a hardcopy A3 document detailing the base case building and the 3 environmental / material and structural corruptions developed over the six weeks. Each corruption must be supported by research which will be defined within the tutorials.
Teaching Staff:

Environmental:
Giles Bruce is a chartered architect, specialising in environmental performance. He divides his time between architectural practice as director of A-ZERO architects, and consulting on the integration of passive environmental strategies on a range of award winning low energy buildings. He studied in UCD, Ireland, and was awarded the Eden Scholarship to study for Masters in Sustainable Environmental Design at the AA, from which he graduated with Distinction in 2007.
Federico Montella studied Architectural Engineering at the Politecnico of Torino and at the Karlsruhe Institute of Technology (KIT). He has worked in Italy as a town planner and later attained an MSc in Sustainable Environmental Design at the AA. He has since then worked in London as a sustainability consultant developing an expertise in low energy housing, education and masterplanning.

Materials:
Evan Greenberg is a researcher, designer and educator. He has worked with architects, engineers, artists and fashion designers around the world. He has taught at the AA since 2008 upon gaining his MSc with distinction in Emergent Technologies and Design. Evan has directed workshops and lectured internationally, and is a Fellow of the Biomimicry Institute.
Nacho Marti taught at the Elisava School of Design in Barcelona for 8 years, from which he graduated with a degree in design, and obtained a Master of Science in Emergent Technologies and Design from the AA. His projects have been awarded, exhibited and published internationally and he is currently working on various commissions from his London-based design studio while teaching at the AA and the KLC School of Design.

Structures:
Ben Godber is a practising structural engineer. Ben has close to twenty years’ design experience working at a range of scales: from minor structural interventions to existing buildings; through to major, international new-build construction projects with well-known architects. Ben also studied architecture, and now teaches at the Bartlett School of Architecture, UCL.
David Illingworth is a Chartered Structural Engineer who has worked on a variety of projects including arenas, supertall high-rise and train stations, as well as numerous sculptures. These have been in completed in a wide variety of materials and locations across the world.
ENVIRONMENT:

Building on the integrated approach of the first term, during the second term, students will specialise on one of the technical disciplines, structure, environment, or materials. Developing skills within each specialisation, students, will be encouraged to explore a hands-on experimental approach with an emphasis on integration of Technical Studies with the First Year design portfolio. In addition to the lecture courses, Technical Studies Design Tutors will attend the First Year Studio, joining the First Years Masters and contribute with tutorials and consultations in the areas of structures, materials and environmental issues. The submission for the course will be made as part of the TS workshop during Week 11 of Term 2 and will be assessed by the TS Tutors in the presence of the First Year studio tutors.

<table>
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<tr>
<th>Session 1: Thursday 15th January (inclusive of Course Introduction)</th>
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<th>Session 2: Thursday 22nd January</th>
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<th>Session 3: Thursday 29th January</th>
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Session 4: Thursday 5th February

10.00 – 13.00  
**Environmental Walkabout - 04**
Looking specifically at sunlight, we will look at ways to understand and design against the relation between building geometry and solar geometry.

14.00 – 17.00  
Presentation of Environmental Walkabout output - 03
Presentation of studio design project and selection of environmental focus for design development. Studio tutors will be asked to join this review.

Session 5: Thursday 19th February

10.00 – 13.00  
Tutorials

14.00 – 17.00  
Presentation of environmental design development 01

Session 6: Thursday 26th February

10.00 – 13.00  
Tutorials

14.00 – 17.00  
Presentation of environmental design development 02

Session 7: Thursday 5th March

10.00 – 13.00  
Tutorials

14.00 – 17.00  
Final presentation of environmental design development and environmental walkabouts. Studio tutors will be asked to join this review.

**Recommended Reading:**

**Submission Requirement:**
Students are required to submit both group work and individual work in The group work comprises write-ups and analyses of the environmental walkabout sessions. Individual work focuses on the development of one environmental aspect of the studio design project.
**Environmental Course Tutors:**

**Giles Bruce** is a chartered architect, specialising in sustainable environmental design. As director of A-ZERO architects, his main design interest is exploring the creative opportunities that low energy design presents in terms of form, materiality, and expression. He previously worked in Ireland, Norway and the UK, including 4 years with the environmental team at BDSP Partnership where he was lead environmental consultant for the Sterling shortlisted, BREEAM Outstanding, LSE Saw Swee Hock Student Centre, with O'Donnell + Tuomey Architects. Giles studied in UCD, Ireland, and was awarded the Eden Scholarship to study for Masters in Sustainable Environmental Design at the AA, from which he graduated with Distinction in 2007. He has taught at UCL Bartlett, University of Nottingham, University of East London, and lectured extensively internationally on environmental design.

**Paul Thomas** is an external practitioner, director at Thomas & Spiers Architects. He has been teaching architecture for over seven years, and is specifically interested in the integration of environmental design into studio projects, both at an early conceptual stage and how this can be carried through to detailed design. Before establishing Thomas & Spiers architects, he worked for award winning architects de Blacam and Meagher in Dublin, Hopkins Architects in both London and the Middle East, and for Sir Robert McAlpine on high profile projects such as the Millennium Bridge, Millennium stadium, and New British Library. He has also worked abroad on voluntary construction projects in Bolivia, South Africa and Arizona.

**MATERIALS:**

The course will provide an introduction to materials and their inherent properties and explore hands-on tools and techniques used to create material systems for potential architectural applications. The course focuses on the development of material strategies through modelling, measuring, drawing and diagramming, supplemented by morning seminars giving an in-depth look at specific materials and their fabrication techniques and the seminal architects, engineers and designers who have made significant contributions to advanced material techniques. Individual tutorials will allow students to explore discussed topics through rigorous experiments employing the scientific method in order to understand how the controlled exploitation of their physical properties can create material systems with differentiated performance. With this knowledge, students will develop material systems through the experimentation of one or more materials gaining expertise through researching, designing, analysing, and evaluating effects to achieve desired performative outcomes.

**Key Issues:**

- Students will be introduced to the history of material systems, techniques and fabrication methods
- Students will understand how to design within the constraints of specific materials and develop material-dependent modelling techniques
- Students will develop an integrated bottom-up design approach incorporating multiple parameters
- Students will develop a rigorous experimental approach to architectural design driven by analysis and evaluation
- Students will explore contemporary fabrication unique to specific materials and effects
- Students will learn to control component-based systems to achieve unexpected yet desired architectural, environmental and structural conditions

**Course Brief:**

Students will explore properties of various materials and their potential applications in architecture by designing a material system capable of producing differentiated effects. Students will develop an understanding of material actions and their subsequent effects; each physical experiment will be analysed through diagrams and measurements, evaluated and create the basis for the subsequent test.
Choosing a specific material or set of materials related to their design interests, students will research its properties, construct a hypothesis around a possible application in an architectural context, test it through multiple experiments, analyse results and develop a differentiated material system. Using this scientific method, each week students will set up experiments, measure data and evaluate results. Hands-on tutorials will direct the students’ research toward the development of a material system capable of achieving varied results. At the end of the course, students will choose one or two configurations of their material system and present their spatial, environmental, and structural effects in an architectural application.

**Week 1: Introduction to Material Properties, Methods and Systems**
What is a material system? What are the tools and techniques needed to develop a material system? What are the possible materials and their effects at an architectural scale? What are the inherent structural, mechanical, environmental and experiential properties of materials? Which material techniques exist, and which can we develop to design differentiated material systems? What are the effects of simple techniques such as cutting, scoring, folding, bending and twisting on different materials? How do we set up experiments in order to observe, analyse, measure and evaluate material performance?

**Weeks 2 - 3: Local**
We will look at the local scale and develop material strategies for component generation and variation. We will explore the ways in which a simple component can be altered slightly within a larger field and its effects on the system as a whole.

**Weeks 4 - 5: Regional**
We will develop an understanding of how the combination of local components can agglomerate into a larger regional component, and create relationships between two different scales of material performance.

**Week 6: Global**
By observing, measuring and recording, we will employ our deep knowledge of specific material systems, their limitations and affordances and develop a design strategy in which to apply our material system. We will create light, dark, soft, hard, bright or reflective spaces through the careful calibration of materials.

**Week 7: Presentations**
Students will present their findings to the class, discussing the relationships between local, regional and global scales within a single material system.

**Submission:**
Students will compile their research dossier as an A4 portrait document, detailing the local, regional and global scales of their system exploration through drawings, diagrams, graphs, and model photographs. A critical review of successes and failures will be recorded and reflected upon.

**Suggested Reading:**
Materials Course Tutors:

Evan Greenberg is a researcher, designer and educator. He has worked with architects, engineers, artists and fashion designers around the world. He has taught at the AA since 2008 upon gaining his MSc with distinction in Emergent Technologies and Design. Evan has directed workshops and lectured internationally, and is a Fellow of the Biomimicry Institute.

Nacho Marti taught at the Elisava School of Design in Barcelona for 8 years, from which he graduated with a degree in design, and obtained a Master of Science in Emergent Technologies and Design from the AA. His projects have been awarded, exhibited and published internationally and he is currently working on various commissions from his London-based design studio while teaching at the AA and the KLC School of Design.

STRUCTURES:

This course offers an introduction to Structural Design in Architecture, teaching structural design as a methodology which is integral to the architectural design process. The aim is to define and find a synergy between structure and architecture through understanding basic principles and exploring them in different structural and architectural systems.

We gain understanding of structure by first exploring the principles of structural systems through research and case studies. We will use a ‘thinking through making’ approach where design and reflection go hand in hand. We see, feel and experience structural behaviour; understanding forces and load paths and questioning the stability, stiffness and strength of a structural system.

By understanding the basic parameters students will be able to play with creative solutions using beams, columns and walls, and manipulate their specific configuration, exploring the harmony between structure and architecture, and pushing the boundaries of form, function and materiality. Where in the second half of the course students will generate individual structural answers to their specific architectural drivers.

Spanning structures; beams, trusses, slabs, cantilever
Stability systems; stability systems in High rise buildings, core, based frames & moment frames
Vertical Load bearing structures; columns
Arching structures; Arches
Suspended structures; cable bridges

Key issues:

- Students will gain an understanding of the basic principles of structure, obtaining a "structural intuition" and understanding for structural logics.
- Students learn to interpret structural systems, understanding forces, load paths, the requirements for structure (strength, stability, stiffness), and the role of the individual structural components.
- Students will appreciate how applied force and capacity relate; why certain shapes, profiles, systems and materials are favoured in structure.
- Students will understand the role and importance of structure in design process, and learn to integrate the structure from start of the design process; creativity involved with structure by exploring structural components and their combined performance in a structural system and how the basic principles can be manipulated to respond to the specific problem.
- Thinking through making; by designing, physically testing, researching, justifying, re-designing and re-testing.

Recommended reading list:
Gordon, J.E. 2003. “Structures or Why things don’t fall down”. Penguin
Mario Salvadori, 1990. The Art of Construction: Projects and Principles for Beginning Engineers and Architects
Heino Engel. 2006 “Structure System”
Mostafavi, Mohsen (Ed). 2006. “Structure as Space: engineering and architecture in the works of Jorg Conzett and his partners”. Architectural Association Press,

Phase 1 'Thinking through making'
In the first three sessions you will be working in pairs researching and experimenting with one structural element. Each weeks work will be uploaded on the blog as for it to become shared knowledge.

Session 1: Case studies & Basic Principles of structural elements
Thursday 15th January (inclusive of Course Introduction)
You will research & understand your structural element in various configurations by looking at two distinct case studies, with an emphasis on the differences between the two systems, and which structural aspects drives them to be different and the parameters that defining the systems presented in force diagrams, physical models.

Understanding parameters, Experimentation + Adaptation
Session 2: Thursday 22nd January
Session 3: Thursday 29th January
Building on your work from week 1, through experimentation, we will aim to understand the parameters that define your element, and then explore the implications and effects of changing these
parameters. We will work on; span, support conditions, type of loads, materials, section size and type, connections, interaction with other elements, amongst other.

We aim to be able to define specific relations and ratios between material section strength, stiffness, geometry.

Each session your team will show the work on their element and adaptations on parameters, through series of physical models assisted by force and deflection diagrams, measured deflections data, etc.

**Phase 2 Addressing structure in context of your architectural proposal**

**Conventional & Experimental options**

In the second Phase you will do individual work on an element of your choice and apply it to your studio design in two scenarios: “Conventional” & “Experimental”. In the traditional option you will design directly based on your architectural design drivers, whereas for the experimental option you can push the boundaries of your design and let creativeness in the structure drive your design.

You will constantly question their structural solutions with a series of tests such as physical models at different scales, diagram of forces of the different proposals, and constantly evaluate what are the pro and cons of each solution.

**Session 4: Knowledge sharing and choosing your element – Link to design work**

Thursday 5th February

In this session each team presents their work, in photographs with annotations, captured date, models, etc. and conclusion of driving parameters on their structural element, which then will be explained by another team to the wall group. We share knowledge and recap on the structural behaviours, before you individually choose your topic and present your choice based on your Architectural design.

**Session 5: Development of traditional and experimental option**

Thursday 19th February

**Session 6: Development of traditional and experimental option**

Thursday 26th February

**Session 7: Development of traditional and experimental option**

Thursday 5th March

**Submission Requirement and Hand-In:**

The submission consists of an A3 booklet with the individual works on your chosen structural element. You will need to submit two unique structural options for you design proposal, addressing the structural behaviour through diagrams and models, and their comparison. Before the hand in you will present your structural options, explaining the implication of the research, the final option implemented in the design, describing their design process and decisions taken. The final submission is due on Friday 20th March 2014.

**Structures Course Tutors:**

Ben Godber is a practicing structural engineer and founding Director of Godber & Co. Prior to training as an engineer, Ben practised and studied architecture. Ben is a graduate of both, the Bartlett School of Architecture, UCL; and Imperial College’s Department of Civil and Environmental Engineering. Prior to founding Godber & Co, Ben was an Associate at Expedition Engineering where he gained wide experience of delivering structural engineering design on a number of projects in close collaboration with architects. Ben is committed to the teaching of structures and construction technology to architects. He is a frequent guest critic on design juries, he has returned to teach at The Bartlett, and is Associate Lecturer in Structures at The University of Kent’s School of Architecture in Canterbury.
Thomas Oosterhoff graduated as Structural Engineer at Technical University of Eindhoven, The Netherlands. After that he has worked in The Netherlands on a wide range of projects from small villa’s to large residential buildings, but main focus in that period was on museums and restoration projects of old monumental buildings. The drive is to create something special, well-thought through, which works both aesthetically as structurally. At this moment Thomas works with BuroHappold in London as Senior Structural Engineer on projects from all over the world with signatured architects.
Second Year students are required to undertake THREE courses delivered over two terms:

Environmental Design in Practice
Structures
Materials

Please note the teaching dates and times for each course:

Environmental:
- Thursday 9th October 2014  2pm to 5pm
- Thursday 16th October 2014  2pm to 5pm
- Thursday 23rd October 2014  2pm to 5pm
- Thursday 30th October 2014  2pm to 5pm
* Submission hand-in: Friday 12th December 2014

Structures:
- Thursday 13th November  3.30pm to 6pm
- Thursday 20th November 2014  3.30pm to 6pm
- Thursday 27th November 2014  3.30pm to 6pm
- Thursday 15th January 2015  3.30pm to 6pm
- Thursday 22nd January 2015  3.30pm to 6pm
* Submission hand-in: Friday 20th March 2015

Materials:
- Thursday 29th January 2015  2pm to 5pm
- Thursday 5th February 2015  2pm to 5pm
- Thursday 19th February 2015  2pm to 5pm
- Thursday 26th February 2015  2pm to 5pm
- Thursday 5th March 2015 2pm to 5pm
* Submission hand-in: by class jury on Thursday 5th March 2015

**ENVIRONMENTAL DESIGN IN PRACTICE**

GILES BRUCE

“We all know environmental design is important – but we just can’t see how it is relevant to our studio work”. This course aims to challenge this sentiment by showing how every design decision that architects make has an immediate and quantifiable impact in terms of environmental performance. Building on the hands-on approach of the first year, the course is structured as part lecture / part workshop, balancing theory with application. Students will use a range of analogue and digital analytical techniques to explore the relationship the luminous, thermal and acoustic environments we experience and the architecture we inhabit. The course aims to eliminate the temptation of ‘greenwash’ from studio design work, by providing students with analytical techniques to test and validate their environmental hypotheses.
### Session 1: Thursday 9th October, 14.00 – 17.00
**Lecture 01: What does Green mean? / Here comes the sun.**
We will examine the role of architects within the wider practice of sustainability. We will look at ways in which architecture can connect directly with the environment around starting with the relation between solar geometry and building geometry.

### Session 2: Thursday 16th October, 14.00 – 17.00
**Lecture 02: The climate outside and why it matters**
We examine the dynamic relationship between buildings and their environment, and the range of climate specific passive strategies that can inform architectural form, materiality and expression and which have a meaningful impact on building energy performance.

### Session 3: Thursday 23rd October, 14.00 – 17.00
**Lecture 03: Getting light and air into our buildings**
Exploring the building as ‘interface’ between inside and outside, we look at how architectural design decisions can impact the luminous and thermal environment within, in terms of daylight and natural ventilation.

### Session 4: Thursday 30th October,

**Recommended Reading List:**

For lecture 01:

- McDonough W., Braungart M. (2009), *Cradle to Cradle*, Vintage Books

For lecture 02:

Lecture 03:


Lecture 04:

- Liddell H. (2009), *ECO-minimalism, the antidote to EcoBling*, RIBA Publishing

Submission Requirement:

Students are required to produce a written report, analysing the environmental performance of their home in London. The report closely follows the methodologies explained in the [http://www.aa-ts-environment.com/](http://www.aa-ts-environment.com/) on-line blog, in terms of understanding sunlight, daylight, heat loss, potential for natural ventilation and energy consumption. Exercises are predominantly simulation based, but may also include quantitative measuring of actual conditions with the Technical Studies environmental measuring tools.

Course Tutor:

Giles Bruce is a chartered architect, specialising in sustainable environmental design. As director of A-ZERO architects, his main design interest is exploring the creative opportunities that low energy design presents in terms of form, materiality, and expression. He previously worked in Ireland, Norway and the UK, including 4 years with the environmental team at BDSP Partnership where he was lead environmental consultant for the Sterling shortlisted, BREEAM Outstanding, LSE Saw Swee Hock Student Centre, with O'Donnell + Tuomey Architects. Giles studied in UCD, Ireland, and was awarded the Eden Scholarship to study for Masters in Sustainable Environmental Design at the AA, from which he graduated with Distinction in 2007. He has taught at UCL Bartlett, University of Nottingham, University of East London, and lectured extensively internationally on environmental design.
The Second Year technical studies Structures course explains the direct link between typology, structural behaviour and architectural design. The characteristics of each structural typology will be explored through research, analysis and testing applications.

Using theory to inform practice, you will develop your understanding of structural behaviour (e.g., tension, compression, bending, shear and torsion) within each of these typologies (e.g., truss, arch, beam, funicular structure). This will be taught through lectures and classes involving your active design input. Week by week, your design work will evolve as we invite you to think through alternative forms to respond to new constraints.

You will be asked to consider your structural layout in 2D and in 3D. The influence of spans, member sizes, bracing, and connections (rigid or pinned) will be explored, culminating in useful rules of thumb for span/depth ratios.

Teams will **design, fabricate and test** their own structure using knowledge gained from the lectures. You will then develop your intuition to recognise heavy loads, the structural behaviour to transfer load, and the structural forms within an architectural context.

**Weekly breakdown**

Each session will have a theoretical, applied and hands on session. In class exercises will be done in teams of 2 and the large scale “make design and test” project will be done in teams of 6.

**Session 1: Structural Types, Structural Layouts, Bending Action**

**In class exercise: 1. Beam grids**

Thursday 13th November, 3.30pm to 6pm

We will focus on understanding bending action in structural elements, experiment with structural layouts addressing hierarchy in structures, the impact of support condition and the impact of materials to size and ways of organising structures in beam grids.

You will explore beam grids and we use span depth ratios to determine section depth, consider hierarchy, primary and secondary structure, and relate position of columns and direction of spans and cantilevers to our architectural design.

**Session 2: 1.2 Funicular Structures - those whose shape responds to load**

**In class exercise: 2. Hanging and standing Arcs in architecture**

Thursday 20th November, 3.30pm to 6pm

We will examine how funicular structures are used in Architecture, what the consequences are of their shape, support conditions, material and type of loading. These aspects are related in force flow diagrams and you will test loading conditions, supports and specific geometry through the making of hanging chain models.

**Session 3: 1.3 Triangulated Structures - those where members are in compression or tension**

**In class exercise: 3. Shaping trusses**

Thursday 27th November, 3.30pm to 6pm

We will aim to understand the internal forces in a truss. We will examine which parameters play a role in the structural behaviour of a truss, and to learn how changes to the boundary condition of the truss, direction of elements, type of truss, type of force, etc. change affect these parameters. Physical models of card and string allow for a test comparison between type of forces and structural comparison between the different “shapes” of the truss.
In class exercise: 4 Prototypes / high high chair asses on connection and stability.
Thursday 15th January, 3.3pm to 6pm
We will address how lateral loads affect the structural design of a building through understanding braced and rigid frames. We will address the importance of the connections and their role in the way loads are transferred, the notion of collapse mechanisms and ductile behaviour.
Each team of 6, will present their prototype for the High High chair for which we will discuss its stability and influence of connections.

Session 5: TESTING EVENT : Design, Make and Test Project: High High chair.
Thursday 22nd January, 3.3pm to 6pm
Working in groups of 6, you will design, make and test a tall chair with its seat 2 meters above the floor. Chairs will be tested by one student who, without assistance, must climb up and sit down on the seat. Then a horizontal sway force (a quarter of a person weight) will be applied. To qualify, the chair must be strong enough and stable with both vertical and horizontal loads.
We aim to understand the specifics of the structural behaviour of your design and understand their failure mechanism.

Submission requirement:
Friday 12th December 2014
Hand in / Upload In house classes week 1, 2 and 3.
Each team of 2 people will need to submit their in class exercises as per the briefs / submissions handed out in class, compiled into one a4 document.
Friday 20th March 2015
High High chair
Each team of 6 people submits their document (as per the handed out brief & submission) on their designs of the high high chair, their construction methods, load path through the structure and how it deals specifically with strength and stability. Including an attempt to understand the type and magnitude of forces in the members of the structure and their specific role dealing with vertical and lateral loads.

Recommended reading list
Constructing Architecture: Materials, Processes, Structures, by Andrea Deplazes Publ. Birkhauser Verlag AG,
Philosophy of Structure, E. Torroja
Structural Decisions, the basic principles of structural theory, Werner Rosenthal
Structure and Form in Modern Architecture, by Siegel.
Aldershot: Ashgate.
Structural engineering for architects, Silver/ McLean/Evans, Laurence King (2014)
Introduction to Architectural technology, Pete Silver, Will McLean Laurence King; (2013)
Course Tutors:

**Philip Cooper** is a consulting structural engineer who combines university teaching with practice in the design office. As a graduate of Leeds University he began his career in research and teaching at the School of Architecture in Cambridge, later joining Harris and Sutherland in London. In 1986 he became Professor of Structural Design at Leeds University sponsored by the Institution of Structural Engineers and he was the founding Director of the Cambridge office of Harris & Sutherland. He is now Technical Director of Cambridge Architectural Research.

**Manja van de Worp** trained as an architect and structural engineer at the Technical University of Eindhoven and Emtech at the AA and has been teaching there since. Her interests lie in finding synergies between structural design and architecture through technology, geometry and fabrication. She has worked for Arup in London in the Advanced Geometry Unit, and Advanced Technology and Research group and is now the Principal of NOUS Engineering London. In addition she teaches at the IAAC in Barcelona and runs international workshops dealing with structural geometry.

**Paola Dora** is a Civil Structural Engineer trained in Italy at Politecnico di Torino University (BSc and MSc Hons). Paola’s master thesis, partly conducted at Buro Happold Engineering in London focussed on structural optimisation through parametric design. Paola has been working at Expedition in London for 2 years, pursuing an interest in both structural engineering and architecture. She has been working on a good variety of projects, from the design of Chiswick Park Footbridge to the extension of Abingdon School designing a new Science Centre with Hopkins Architects and is currently working on a major London refurbishment projects.

**MATERIALS**

**CAROLINA BARTRAM AND NINA TABINK**

The course introduces the range of materials that should be considered in the early stage of the design process. Materials reviewed will include concrete, steel and aluminium, timber, masonry, glass, fabrics and composites.

We will be comparing materials in terms of the factors that influence their choice in the design process. Every single object that we make evolves from a process that turns a material into a functional shape. In each situation we must be able to assess the importance of the factors that influence the design; visual requirements, speed and method of construction and fabrication, cost, maintenance, environmental impact and durability, and relate these factors back to available technologies. All these elements must be balanced in a design and this balance will change in every situation. The students will be encouraged through case studies to appreciate how this balance shifts, to understand how the use of different materials in similar situations can affect the design and to develop an awareness of the range of possibilities available.

Students will also be encouraged to develop their powers of observation; something that began in the first year TS. Materials can appear in many different guises and perform many different functions – from simple cladding to load bearing elements. The detailing and fabrication can be greatly affected by this. Students are expected to carry out a brief one page case study/site photos exercise at early stages of the course and then to work at one to one scale with a material in order to explore its limits and characteristics with a final presentation/testing at the end of course.
Summary of Seminars:

Session 1
2.00pm to 3.15pm Introduction, and Material properties
3.15pm to 3.30pm break
3.30pm to 4.00pm Chair quiz
4.00pm to 5.00pm Sustainable materials

Session 2
2.00pm to 3.15pm Timber
3.15pm to 3.30pm break
3.30pm to 4.00pm Site photos exercise
4.00pm to 5.00pm Steel

Session 3
2.00pm to 3.00pm ceramics 1 – concrete
3.00pm to 3.15pm break
3.15pm to 4.00pm everyday items quiz
4.00pm to 5.00pm ceramics 2 - glass

Session 4
2.00pm to 3.00pm composites and plastics
3.00pm to 3.15pm break
3.15pm to 4.00pm Technical tests
4.00pm to 5.00pm ceramics 3 bricks and stone

Session 5
Presentation of One to One projects

Reading list:

- ‘Structural Glass’ Rice and Dutton, publ. Spon.
- ‘Cradle to Cradle: Remaking the Way We Make Things’ William McDonough and Michael Braungart

Websites:

http://www.materia.nl/
http://transstudio.com/

Carolina Bartram is an Associate Director at Arup. She is a chartered structural engineer and also has a Masters Degree in Design from Harvard GSD.

Nina Tabink is a chartered structural engineer at Arup and is currently doing a Masters Degree in Interdisciplinary Design for the Built Environment at Cambridge University.
The 3rd year Structures course builds upon the understanding of structural behaviour, through a series of master classes in structural systems. The course aims to gain an understanding of each systems' specific structural behaviour driven by explicit parameters and how they relate to the design, deriving a holistic understanding of the system. You will explore how to model, simplify and extract the actual behaviour of a structure and how you can relate your physical model to the large scale performance.

In a term long design and modelling project, you will conduct your own research in one of these structural systems through posing the question "What if... (I change one of the driving parameters, and how does the structure respond or change its behaviour).". Whereas you will be able to capture the unique structural characteristics of the structural system of your choice. This will result in two physical models, with a change in one of the factors that determines the structural system.

Through designing, physically testing and comparing two physical models, the structural systems' link to their structural behaviour and therefore to design, will be put to the test. This scale models will be tested under load, and the results used to make theoretical predictions about the strength of the real full size structure. These results will be compared with reality, and hence the power of model analysis will be revealed.

**Session 1: Understanding structural behaviour through models**
Thursday 9th October, 2pm to 3.30pm
The first session deals with understanding structural model analysis, exploring if I have got the right model using dimensional ratios to link the physical model to the large scale structure. We will question how we can simplify structural behaviour in the right way within the model and how do structural behaviours relate to the different type of structures addressed in this course.

**Session 2: Membrane and tensile structures**
Thursday 23rd October, 2pm to 3.30pm
Membrane structures rely on double curvature to resist imposed loads efficiently. We explore geometry, constraints, forces within the membrane and their support conditions and ways how to stress the membrane, the forces within cables and their directionality.
**What if? Exercise.** Present your group’s (team of 6 people) choice of structural system and first table top model(s)

**Session 3: Shells / Plates and grid shells**
Thursday 16th October, 2pm to 3.30pm
This lecture addresses forces in shells, and explores how geometry, thickness, material and fabrication relates to the overall behaviour of shells.
**What if? Exercise.** Show a test the next evolution of table top model(s) of your structural system and loading diagrams exploring the structural behaviour.

**Session 4: Monocogue, Skin & composites**
Thursday 30th October, 2pm to 3.30pm
We will explore the structural idea of Monocogue, Skin & composites structures; why “sandwich structures” are stronger, how skin can become structure, how composite action can be determined,
what the “filling materials” material and elements can be and how they generate specific structural behaviour.

What if? Exercise. Presentation of first model and the what if? Question. [Each group to present their understanding of the structural system and the “final default” physical model following the topics to be addressed stated in submission requirements: Topics to be understood to determine the structural behaviour].

**Session 5: Large span structures.**
Thursday 13\(^{th}\) November, 2pm to 3.30pm
This lecture sets out ways to increase the capacity of normal spanning structures to become large span, using; post tensioning, subtended structures and (arched) space frames (becoming light weight structures). Also the structural and detail / construction aspects of the systems will be addressed.

What if? Exercise. Discussion of the first iteration of your “What if?” model(s) addressing the change in parameters and the impact it has on the structural behaviour and its aesthetic impact.

**Session 6: Highrise structures.**
Thursday 20\(^{th}\) November, 2pm to 3.30pm
In highrise structures both vertical and lateral loads play an important part in the structural design. The choice of lateral stability system determines a lot of the architecture. This lecture sets out the different stability systems for towers, and how the structures reaction to both wind and earthquake loads. You will learn how to calculate the size and shape of the core and how to model impacts of a combination of different stability elements in the physical.

What if? Exercise. Discussion of the next iteration of “What if?” model(s) and prepare loading setups for testing event.

**Session 7: TESTING EVENT What if?**
Thursday 27\(^{th}\) November, 2pm to 3.30pm
In the last session, each team will test their two models using strain gages to vertical and or horizontal loads. Final models must accurately reflect the design of the real structure both in terms of cross-sections of members and materials. Dimensional ratios will be used to determine the responds of the two models structure and relate them to one another, and to the real structure.

Submission requirement:
The term long design and modelling project, running in parallel with the lectures will be conducted in teams of 6. You will use physical models, load diagrams, and presentations to explain the structural behaviour of your choses structural system.

**Topics to be understood to determine the structural behaviour:**
Note: these are to be presented to your own order of importance depending on your structural system & explorations, for both structures.

Next to the description of their own unique behaviour and the impact of the parameters you are asked to present a comparison between them.
- Impact of scale – why did you make your structure this specific scale
- Impact of material choice – how does the chosen material behaviour relate to
- What is your simplified scheme? Show forces through structure.
- Impact of supports – Position (where is your structure supported, type
- Impact of connections between elements
- Impact of the geometry
- Impact of fabrication – in real building and in your model.
- Ratios; how do the models compare to the real building scale. – show the forces that you think that are acting on your structure
- WHAT if question – and how to change it in your existing physical model
Submission Hand-In: Friday 12th December
Teams must submit written reports documenting the entire modelling project explaining the impact of structural behavioural parameters for each of the models and their comparison, including numerical analyses, dimensional analysis calculation and conclusions.
Format A4, or A3 (+ digital copy on CD + key Images)

Recommended reading list:
General books:
Building Structures, from concepts to design, Millais,M., Spon Press, 2005
Developments in Structural Form, Mainstone, R., Architectural Press, 2001
Tony Hunt’s Second Sketchbook, Architectural Press, 2002
Structure as Architecture, Charleson, A.W., Elsevier, 2005
Lightness, Adriaan Beukers, Ed Van Hinte,, 010 Uitgeverij; (2005)
Structural engineering for architects, Silver/ McLean/Evans, Laurence King (2014)
Introduction to Architectural technology, Pete Silver,Will McLean, Laurence King; (2013)

Model Analysis:

Membrane and tensile structures
K. Koch ), K. Habermann
Light Structures - Structures of Light: The Art and Engineering of Tensile Architecture–(2005) by Horst Berger
Tensile Structures (Architectural Design Profile), John Wiley & Sons (1995)
http://www.architen.com/articles/basic-theories-of-tensile-membrane-architecture/

Shells / Plates and grid shells:
Key reference people: A. Gaudi, Frei Otto, Eduardo Torroja, Rafael Guastavino, Eladio Dieste, Heinz Isler, Candela,
Innovative Surface Structures: Technologies and Application, Taylor & Francis; (2008)
http://designtheory.fiu.edu/readings/otto_working.pdf

Monocogue: Skin & composites
Lightness, Adriaan Beukers , Ed Van Hinte, 010 Uitgeverij; (2005)
Ultra Light – Super Strong: A New Generation of Design Materials, N. Stattemann
Materials for Architectural Design 2, by V. Ballard Bell, P. Rand, L. King; (2014)
Highrise structures
Skyscrapers: Structure and Design, Matthew Wells (Author), Laurence King (2005)
http://www.slideshare.net/nicksocrates/high-rise-building-research-document

Course Tutors:
Philip Cooper is a consulting structural engineer who combines university teaching with practice in the design office. As a graduate of Leeds University he began his career in research and teaching at the School of Architecture in Cambridge, later joining Harris and Sutherland in London. In 1986 he became Professor of Structural Design at Leeds University sponsored by the Institution of Structural Engineers and he was the founding Director of the Cambridge office of Harris & Sutherland. He is now Technical Director of Cambridge Architectural Research.
Manja van de Worp is trained as an architect and structural engineer at the Technical University of Eindhoven and Emtech at the AA and has been teaching there since. Her interests lie in finding synergies between structural design and architecture through technology, geometry and fabrication. She has worked for Arup in London in the Advanced Geometry Unit, and Advanced Technology and Research group and is now the Principal of NOUS Engineering London. In addition she teaches at the IAAC in Barcelona and runs international workshops dealing with structural geometry.
Giancarlo Torpiano is a structural engineer working in a multi-disciplinary group based in London. A strong interest in the nature of the design process led him to pursuing a masters in architecture at the Architectural Association, where he currently tutors in the Landscape and Urbanism graduate programme. He is specialised in computational design, design automation and the structural design of complex geometries.

Terms 1, 2 and 3
TS3 (THIRD YEAR) DESIGN PROJECT
KENNETH FRASER WITH CHRISTINA DOUMPIOTI, WOLFGANG FRESE, PABLO GUGEL, JULIA KING, ANTIOPI KORONAKI, NINA TABINK AND MANJA VAN DE WORP

Course timetable: Terms 1, 2 and 3

The Course
TS3 Design Project is the application of the technical knowledge acquired through the lecture courses, seminars and general experimentation that students have attended and carried out in the course of the first three years in the school. The most suitable environment for this application is the project that each student is developing as his or her Unit work. It can therefore be said that the Technical Design Tutors aim at providing each student with the technical wherewithal to materialise the idea, concept or aspiration born in the intimacy of the Unit work.

The Scope
The scope of the TS3 Design Project is a broad one because it aims to respond to the demands of each individual Unit agenda. Some Technical Design Tutors seek to provide the support the students need in specific areas such as Structures, Materials and the Environment whilst will also help them in finding the best way to integrate the Technical Studies with their Unit work: all of them under the direction and guidance of the Intermediate Master of Technical Studies Kenneth Fraser. TS3 Design Project can focus on one or several technical aspects of the portfolio work. The work is expected to be carried out with the rigour and completeness that corresponds to Part I students.
The process during the Year:

Early in the first term the Master of Technical Studies and staff visit each Unit in their Unit/Studio space, with the tutors present. During this seminar the specific nature of the TS3 design project will be explained and examples of previous successful submissions will be presented. These will be available in digital form via the Library and hard copies will be form the TS library for students to examine, and students may borrow these at anytime during the year. At this meeting the scope of work as well as suitable methodologies of physical and digital simulations and experiments are presented and discussed. The criteria for assessment are also discussed, bearing in mind that the essence of Technical Studies in the third year is a project on architectural technology rather than a discussion focused solely on earth sciences, physics and chemistry or indeed a mere collection of excessive amounts of digital material from internet and other third party sources. During the first and second terms students may book individual tutorials as often as they wish. Tutorials are held with the TS Staff on Thursday afternoons.

The Requirements

Bearing in mind the notes below under the heading of “AA Technical Studies, mapped to ARB/RIBA Criteria” the TS3 submission is a stand-alone submission, which may include a variety of media, such as printed text and drawings, videos, models, etc in which the research and experimentation carried out as part of the TS3 Design Project is recorded, explained and annotated. The information obtained as a result of the research for the TS3 is evaluated and design decisions follow from this research. The recording of these design decisions forms part of the documentary evidence underpinning the TS3 Design Project conclusions.

Interim Review, Final Submission, High Pass Panel:

Unit Masters are required to outline their Technical Studies unit approach as part of their unit presentations at the beginning of the year. This is intended to help define an area of technical investigation within which students can operate and pursue a more specific agenda related to their individual project.

Two timeline options are offered to all Units:

<table>
<thead>
<tr>
<th>TS3 Design Project Option 1/Early TS</th>
<th>Interim Jury</th>
<th>16th to 20th February 2015</th>
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<tr>
<td>TS3 Design Project Option 1</td>
<td>Final Submission</td>
<td>Friday 13th March 2015</td>
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<tr>
<td>TS3 Design Project Option 2/Late TS</td>
<td>Interim Jury</td>
<td>9th to 13th March 2015</td>
</tr>
<tr>
<td>TS3 Design Project Option 2</td>
<td>Final Submission</td>
<td>Monday 27th April 2015</td>
</tr>
</tbody>
</table>

The Interim Jury is held with the Unit Masters and TS staff. This is a table presentation with all students present in a jury like environment. The work will be discussed and verbal advice given as agreed between the TS and Unit staff. A written assessment will be given to each student outlining what needs to be undertaken for the Final Submission three weeks later.

High Pass - students who have achieved a good Pass at the Final Submission and whose work is agreed to have exceptional technical potential will have their work reviewed again by the High Pass Panel (TS Staff) on Thursday 7th May 2015. Students are encouraged to further develop their technical design work in digital and physical models. Students will not be present during the High Pass review but all High Pass projects will be available to view by the School Community on Friday 8th May 2015.

AA Technical Studies, mapped to ARB/RIBA Criteria:

1. The demonstration of the assimilation of the Course material and familiarity with concepts, strategies and analytical methods and tools;
- the ability to develop a hypothesis for an architectural technical design, and conduct in a creative and systematic manner the synthesis of structure, material and environment, within the cultural context and architectural domain defined by the Unit Studio. The ability to conduct research into appropriate fabrication and construction processes, in defined cultural, economic and social production contexts, and be able to form appropriate strategic proposals in relation to the architectural ambitions that inform the experimental exploration of the design proposal.

2. The demonstration of the ability for comparative analysis and meaningful generalisation;
- the ability to conduct analytical case studies of architectural and related precedents, and abstract principles, processes and techniques from those case studies. Be able to determine the strategic significance of the analytical material in relation to the hypothesis driving the thesis.

3. The development of critical faculties and advanced conceptual skills;
- demonstrate the ability to conduct and collate a critical analysis of precedents, and relate them to digital and physical design experiments, to concepts of structural, material and environmental science, and to be able to make critical decisions as to their significance for the thesis.

4. The demonstration of clear structure, precise communication and presentation of work; and the referencing of sources of information using agreed conventions;
- to develop skills and confidence in the presentation of research, experiments and conclusions in well structured arguments, and the use of properly attributed sources and references in the documentation of the Technical Design Thesis.

5. The demonstration of clear and appropriate formulation of hypotheses and arguments, and the ability to present and debate, and to deploy these for the planning and the pursuit of a research and design agenda;
- the ability to set out and conduct research into architectural and related precedents and processes, form appropriate hypothesis for the materialisation and production of the architectural ambitions of the design, be able to formulate principles for a series of physical and digital experiments, and be able to inform and resolve the technical design thesis according to the research and experimental findings.

6. The demonstration of critical judgement and appropriate application of Course material and specialised knowledge to concepts and modes of architectural production;
- the ability to creatively explore and resolve the central issues of a design, synthesising defined architectural ambitions with the structural, environmental and material research and experiments, into a well documented technical design thesis that is contextualised by proposals for fabrication and assembly that are situated in the cultural and economic domain of the Unit Studio.

These criteria will be discussed with each Unit Master and their students in the first term, and appropriate strategies for delivery of projects that are suitable in scope will be negotiated.
How can architecture be informed and influenced by material qualities?
The course will investigate the relationship between matter and energy and the implications that this relationship might have to architectural form and spatial relations.

It will be both a theoretical and a design led exploration through which the notion of the boundary will be revisited not as a solid demarcation, but as a transitional zone capable of conveying energy. This will be achieved by investigating material relations and their intrinsic dynamic qualities.

Towards this exploration different examples will be visited spanning from arts and biology to vernacular architecture and technology. Form-finding, material computation, digital simulation, programmable matter, responsive material systems, variable-modulus material structures and material energies are key concepts that the course will focus on.

Students will submit written reports, which will document the theory, process and design of a responsive material interface.

**Seminars:**

Session 1. Introduction to material properties.


Session 3. Dynamic material systems. Smart materials.


Session 6. Responsive material interfaces. Embedded computing.

Session 7. Work in progress: presentations and feedback.
Reading List

- Series of Books from Institute of Lightweight Structures. UNIVERSITAT STUTTGART. Institut fur Leichte Flachentragwerke. [@ AA library]

Links:

- http://materiability.com/
- http://www.materialise.com/
- http://transmaterial.net/
- http://mindsetsonline.co.uk/Site/Home
- http://hellocellularmaterialsblog.ddc.dk/
- http://www.material-lab.co.uk/
- http://materia.nl/
- http://es.materfad.com/
- http://materialconnexion.com/

Submission Requirement:

Students will submit written reports, which will document the theory, process and design of a responsive material interface.

The interface either domestic or urban will challenge existing ones and will be capable of enhancing sensory experiences through its materiality.

The process of experimentation with different hybrid materials is a generative one towards speculations, potentialities and implications. It aims at fostering new spatial sensibilities.

The deliverables will be a written document (1,500-2,000 words) including scenario and references, diagrams of matter/energy relationships, and physical models or/and renders.

A detailed hand-out with the prerequisite deliverables will be distributed in class.
Christina Doumpioti [Dip. Arch.Eng (Hons) AA MArch RIBA II], leads research and curriculum related to material based generative design, material simulation and responsiveness. She is a registered Architect and received her Master of Architecture (MArch) with distinction from the Architectural Association (AA). She has worked as an Architectural Assistant and Computational Designer in Arup Associates and has been Studio Master at the EmTech programme as well as instructor at the Media Studies at the AA. She has been tutor at Brighton University, March level, and for two years she was the co-director of the Biodynamic Structures Global Visiting School. She is currently a TS tutor and lecturer at the Architectural Association as well as a practicing free-lance architect.

SUSTAINABLE URBAN DESIGN
IAN DUNCOMBE
Thursdays 3.30pm to 5pm

There is an ongoing fascination with the tall and super tall buildings that define the evolving skylines of the world’s major cities. But can they contribute to a more sustainable future and what role does environmental engineering play in the design of these towering structures? The course aims to address these questions whilst imparting the fundamental knowledge needed to design tall. We will consider tall buildings in an urban context, the strategic considerations defining form, the impact of climate, the environmental drivers affecting form and fabric, servicing strategies and various approaches to low energy and sustainable design. Students will have the chance to apply the principles learned from the course by developing a concept for their own tall building.

Weekly Breakdown:

<table>
<thead>
<tr>
<th>Session 1</th>
<th>The importance of environmental performance and urban sustainability of tall buildings</th>
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<tr>
<td>Session 2</td>
<td>Design strategy I - Form</td>
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<td>Session 3</td>
<td>Design strategy II – Envelope</td>
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<td>Session 4</td>
<td>Design strategy III – Servicing and Sustainability</td>
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<td>Session 5</td>
<td>Elevator systems for tall buildings</td>
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<tr>
<td>Session 6</td>
<td>Passivhaus applied to tall buildings</td>
</tr>
<tr>
<td>Session 7</td>
<td>Presentation of Coursework</td>
</tr>
</tbody>
</table>

Bibliography:

1. The Environmental Performance of Tall Buildings – Joana Carla Soares Goncalves with Erica Mitie Umakoshi
2. Eco Skyscrapers – Ken Yeang
3. Eco Skyscrapers Volume 2 – Ken Yeang
The submission requirement for this course will be advised during the course sessions.

**Ian Duncombe** is a Director of BDSP Partnership, an international consulting engineering practice specialising in sustainability and the design of low energy buildings. Apart from a commitment to environmentally responsible design, the practice has an established reputation for engineering innovation and for integrating advanced computer modelling techniques in its day-to-day work.

During his career, Ian has worked closely with many leading architects on innovative and exciting projects all over the world. He has a keen interest and a wealth of experience in environmental engineering and particularly enjoys developing holistic solutions where architecture and structure form an integral part of the environmental systems.

On graduating from the University of Bath in 1987, Ian began his career working on Reykjavik City Hall and then on the Foster designed Century Tower in Tokyo. Over the next eight years, he worked on further projects in the UK, Japan, Germany and France including research facilities at Imperial College, the Stirling Prize winning American Air Museum at Duxford and a headquarters and gas control centre for Verbundnetz Gas in Leipzig. In 1993, he moved to a joint venture office in Berlin to lead a team working on Grimshaw’s Ludwig Erhard Haus, home to Berlin’s Chamber of Commerce and Stock Exchange. In 1995, Ian co-founded BDSP Partnership and has continued to lead building services and environmental engineering teams on notable projects in the UK and overseas, including masterplans, offices and headquarters, data centres, residential projects, museums, civic buildings, retail developments and hotels. Landmark projects include the Zayed National Museum in Abu Dhabi and a second Stirling Prize winner in 30 St Mary Axe (the ‘Gherkin’). Current work includes Central Market, a 750,000m² mixed use development in Abu Dhabi with three high rise towers, the tallest standing at over 370m.

Ian has lectured widely on environmental engineering at Universities and to other professionals.

**PROCESS IN THE MAKING**  
**WOLFGANG FRESE**  
**Thursdays 2pm to 3.30pm**

What defines the way in which we build? What are the processes and influences that shape the creation of our buildings? In what way do the greater forces of society, technology, culture and desire dictate the method and materials chosen for construction?

The creation of architecture involves a synthesis between the quality of design and the way in which it is made. It is the joining of the processes that links the designing of architecture with the art of building.

In this process, the architect plays the role of a conductor of an orchestra of very different skills, based on imagination, creative interpretation of the Client requirements, expertise in their particular field and experience.

The role of the architect has changed considerably over time from a master builder to a consultant with often specialist skills in either a particular building type, building component or even project management. The character of the architect’s involvement also changes through the different phases of a project.

It is however essential for architects to remain at the centre of a project to retain control over how their designs are translated into completed projects. In order to do this, we collectively have to acquire a comprehensive understanding of contemporary building methods and materials.
As architects we are required to understand the nature of the building process and apply appropriate technology if our ultimate goal is to see projects realised. The role and purpose of this course is to help to understand and assimilate some of these ideas to provide an insight into how projects are built.

It is intended to investigate the following topics through a process of discussions centred on presentations of specific contemporary projects. We will be visiting a well-known architectural practice, followed by a site visit at the conclusion of the course to experience the realities of construction. Students will also be required to submit a paper that explores further an agreed research or case study subject.

Session one: Players in the match
Course introduction and definition of objectives; the client, the team and the nature of construction projects

Session two: Building Envelopes
The design and development of complex geometries in façade engineering

Session three: The Lightweight: materials and the industry, part 1
ETFE and other surface materials

Session four: The heavyweight: materials and the industry, part 2
Concrete engineering in micro- and macro-scale
(Student case study proposals: presentation)

Session five: Building in a different culture
China and its special relationship to the UK through Hong Kong

Session six: Engineering, art and architecture
Investigations into collaborations. Where are the chances? What are the challenges? Where can we improve?

Session seven: Course conclusion
(Student case study presentations)

Preliminary reading list:
- An Engineer imagines, Peter Rice Artemis 1993
- The architecture logbook, Renzo Piano, Gerd Hatje 1997
- Buckminster Fuller, Your private Sky, Lars Mueller, 2001
- Lightness, O10 Publishers, Rotterdam, 1998
- Glass, Structure and Technology, Stefan Behling. Prestel 1999
- The new wood architecture, Naomi Stungo. Laurence King 1998
- Planning to build?, A practical introduction to the construction industry. CIRIA Architectural Knowledge, Francis Duffy, Spon 1998
- Constructing the team, Sir Michael Latham, Stationary office, 1994

Course Tutor:
Wolfgang Frese studied architecture at the Academy of Fine Arts in Stuttgart, Germany, before completing a masters course at the Bartlett, UCL. He worked with several design led architectural
practices as well as a façade engineer for atelier one in London and was Associate at Alsop Architects for over 10 years. He has been involved in a variety of projects including the Theatres on the Bay in Singapore and Federation Square in Melbourne. He is currently a senior project architect at AHMM in London and working on a mixed used development in Oxford Street,

**SMALL IN LARGE – THE INTERRELATION OF COMPONENT AND SYSTEM**

**MARTIN HAGEMANN**

Fridays 10am to 11.30am

The course aims to analyze and classify architectural components as part of larger systems. Due to rationalization, pre fabrication, flexibility, exchangeability and maintenance the use of components in architecture has become very common. It seems interesting to look at the role the type of component plays in the larger system it sits within.

We will learn to identify and critically review existing component based systems throughout history before investigating how advanced technology in the design and fabrication process can be used for redefinition and contemporary interpretation. Another aspect of the investigation will look at the importance of the connection of components for the system. Furthermore it will be examined in how far the scale of the component is important for the function and expression of the whole and in how far they are exchangeable in different scales. What are the risks and opportunities of scaling macrosystems into inhabitable scales (biomimicry)? We will get to know systems, in which the individual component is adaptable in its behaviour and thus turns the whole system into a responsive structure that will adjust to surrounding conditions.

We will invite researchers from different European research institutes to show their latest experiments in theory and practice and share their knowledge with us.

There will be a practically orientated case study at the end of the term which will explore the topics studied during the seminar.

The course is aiming to give the designing architect an insight into the theory and practice of component based structures; how they are organized, assembled, how they perform, where research currently stands and where the journey can potentially go.

- **Component Based Architecture**
  - a 10000 year review, categorization of components and systems

- **From Generic to Specific**
  - role of the unit for a system

- **Parametric Use of Components**
  - guest lecturer

- **Applied SIL – techniques**
  - assembly, grouping of components, complexity, loads in component based structures
  - guest lecturer

- **Size and Flexibility**
• transferring components from one scale to another, biomimicry – role of macro components in nature

• Fabrication Techniques
  • material, connection, assembly
  • guest lecturer

• Geometry
  • arrangement of components, connection of components

  Adaptronics and Smart Structures
  • adaptable components, dynamic systems, elasticity of components

The submission requirement for this course will be advised during the course sessions.

Suggested Reading:

Buckminster Fuller: Starting with the Universe

ARCH+ (188): Form Follows Performance

Edition DETAIL: Components and Systems: Modular Construction

Philosophy of Structures by Eduardo Torroja

Components and Connections: Principles of Construction

Performative Architecture: Beyond Instrumentality

Pamphlet Architecture 27: Tooling

Innovation in Architecture (Brookes and Poole): essays

Adaptronic Systems (Janocha) - architectural part

Algorithmic Architecture (K. Terzidis)

**Martin Hagemann** is an architect working for Grimshaw in London. Following two years as a bricklayer he studied and taught architecture at the Technical University of Braunschweig, Germany, and the Royal Academy of Fine Arts in Copenhagen, Denmark. After working for COOP Himmelblau in Vienna he moved to Sydney to work and teach at the University of Technology, focussing on components and systems. He is currently working on several arts and culture projects at Grimshaw and is member of the company’s computational design research group and biomimicry research group.
Structures are complex systems providing strength, stiffness and stability to buildings. This course is conceived to provide architects with enough knowledge to study structural systems and understand the limitations of various methods of construction available.

The course starts with a brief history of the most common types of constructions and is followed by detailed studies of a variety of structural principles and forms (through a number of case studies). The objective of the course is to make students aware of structural options and thus comfortable during the development of their unit project designs and in their future professional endeavours. The course is also providing an understanding of constraints related to the design process and methods for the evaluation and the selection of options.

The completion of an assignment is required to pass the course. Its objective is to test the ability of the students to study the structural system of an existing building. Between lectures, the student needs to do some research about a selected building and extrapolates the structural principles by looking at drawings, photographs and other design information available. The structural concepts must be summarised in a few pages and presented by giving preference to graphical representations of load patterns and structural deformations (no calculations are required throughout the course). The analysis of the structural concepts must be completed with the proposal of alternatives solutions that could meet the same client’s brief.

The course is divided in 7 lectures covering the following topics:

Lecture 1:

**Brief history of structural design**

- Introduction of the course and assignment brief
- History of structural design
- Materials properties, loadings and equilibrium

Lecture 2:

**Materials, loadings, equilibrium and stability**

- Stability systems
- Compression and tension structures

Lecture 3:

**Design process + assignment presentation**

- Bending elements, plates and shells structures
- Skyscrapers analysis

Lecture 4:

**Compression and tension structures**

- Design process
- Workshop on analysis of building structures
Lecture 5:

**Bending elements, plates and shells structures**

- Bridges analysis
- Workshop on analysis of bridges
- (Assignment tutorials)

Lecture 6:

**Foundations systems + assignment review**

- Timber structures
- Comparison between structural materials
- (Assignment tutorials)

Lecture 7:

**Advanced structural engineering and structural failures**

- Structural failures
- Advanced structural engineering
- (Assignment tutorials)

The submission requirement for this course will be advised during the course sessions.

**Bibliography/suggested reading:**

An Engineer Imagines by Peter Rice, Ellipsis Press, 1998

Happold: The confidence to build by Derek Walker, Bill Addis, Spon Press, 1998

Informal by Cecil Balmond, Prestel USA, 2007

Creativity and innovation: the structural engineer’s contribution to design by Bill Addis and William Addis, Architectural Press, 2001

**Emanuele Marfisi**

Emanuele Marfisi is a structural engineer with a degree from the University of Florence, a PhD from Cambridge University and ten years' work experience in engineering design. Over the years, he has worked on a number of UK and international projects with well-known architects such as Foster+Partners, Grimshaw, Zaha Hadid, Hopkins, Ron Arad, Christian de Portzamparc and Franck Gehry. This experience allowed him to appreciate various architectural styles and design approaches, reinforcing his ability to challenge the usual way of carrying out structural design. His professional interest lies in multidisciplinary integrated design and in the use of new technologies and systems to bring innovation in the construction industry. After a number of years in London, Emanuele is now working as Project Director for Setec Batiment in their Paris office.

**Chris Davies**

Chris Davies is structural engineer with a professional background in multi-disciplinary engineering with a degree from the University of Leeds in Architectural Engineering that included a year placement at the Pennsylvania State University. Chris has nine years’ experience working at both a large and small structural engineering practices. During this period he has worked on projects with architect’s Allies and Morrison, Foster+Partners, and Aedas across education and commercial sectors focusing on interdisciplinary design. Recently he has worked on advanced timber projects with cross laminated timber and glulaminated timber in the UK. Chris is an Associate at Engenuiti in London.
How would a structure made of lead be? Is it possible to design a wall made of porcelain? Can I build with salt? Can I use water as a building material? What kind of material would absorb smells? The ways of creativity are inscrutable and many times confront students with questions that defy conventions.

Operating outside the manuals and regulations requires a solid knowledge based on some fundamental laws of physics and principles of material science. Since technologies and materials evolve so quickly, information soon becomes obsolete. The aim of this course is therefore to equip students with a theoretical framework that goes beyond the particulars and is applicable to each new material challenge that may be faced in future projects.

Through a series of seminars and lectures ranging from inspirational projects based on innovative materials and fabrication techniques through to physical and material principles, students will develop an understanding of a new approach to materials in design where performance is not always based on optimization, material failure can be a success and where inventiveness is as important as fabrication, technology and material properties.

Throughout the course, students will test and apply the newly acquired knowledge by designing a new composite material, testing it and speculating about its possible architectural applications. By the end of the course, students will have a good understanding of how Technical Studies can trigger creativity and inform the design process.

Outline of Lectures:


Session 3. Advanced fabrication techniques.


Session 5. Metamaterials, nanomaterials and smart materials.

Session 6. Guest lecturer. TBA.

Session 7. Students’ presentation.

Reading list:


Resources:

- http://www.instituteofmaking.org.uk/materials-library
- http://www.mindsetsonline.co.uk/
- http://www.iom3.org/
- http://www.howstuffworks.com/

Submission requirement:

The project developed throughout the course will focus on the conceptualisation and fabrication of a composite material with innovative properties and performance. Through research, hands on modelling and physical and digital testing, students will explore the opportunities arising from the combination of the properties of different materials to produce unexpected yet desirable effects and behaviours. In order to speculate about the possible architectural applications, students will test and measure the material samples to describe qualitatively and quantitatively their properties.

Student will submit individually or in pairs an A4 portrait dossier including the following:

- Text (1500-2000 words) that replies to the following questions:
  What are the concept and performance goals of the material?
  What are the examples that have been researched to inform the design process?
  What are the properties of the constituent materials?
  What are the fabrication process and technologies associated to it?
  How does geometry affect the behaviour of the material sample?
  What are the properties of the final composite material?
  What are the possible architectural applications?
  What are the conclusions and future developments?

- Diagrams, drawings and photographs that adequately illustrate the initial experiments, the fabrication process, the physical and/or digital testing and the performance of the final result.

- Performative model in 1:1 scale. This should be a single material sample that can be easily transported. The model will be displayed during the final presentation but won’t be submitted, therefore it will need to be adequately documented and photographed in the dossier.

Nacho Martí taught at the Elisava School of Design in Barcelona for 8 years, from which he graduated with a degree in design, and obtained a Master of Science in Emergent Technologies and Design from the AA. His projects have been exhibited, published and awarded internationally, including a nomination for the 2007 Index Design Award in Copenhagen, the FAD prize in 2008, the IPlus award in 2009 and high commendation in the TTJ Achievement in Engineered Timber Award in 2013. He is currently working on various design commissions from his London-based design studio while teaching at the AA and the KLC School of Design.
Continuously searching for deeper exploration designers are believed to be the next innovators and at the forefront of a new revolution, picking and matching technologies from other industries. It is the scientific and designer’s eye combined with a research mentally needed to transform existing systems into new ones.

This course aims to explore old and new technologies to push design in a new direction, create our own dreams and drivers, and defining new methods of transforming a concept into material. By understanding our own and other fields, we aim to make them exist simultaneously. We bridge between fashion, product design, information technology, science and nature to find inspiration and capture their design methodologies, materially and structural ability, systems and process of design and repose to input etc. You will interrogate their rule and reasons and applied methods to be able to not only see what is happening around us in technology but become able to use and apply it into architecture.

We explore Technology in Architecture where it brings new design methodologies, the relation between in an output, use of “machines”, data, information and materials. We work from two ways, from seeing what is out there with (potential) application in design and by architectural drivers that challenge technology.

You will gain a greater and broader technical creativity and the assignments tests the ability to scale, adapt the existing and drive utopian ideas. Instead of cut-paste-and copy we dissect, examine and specifically reposition pieces to allow for intuitive and specific solutions.

This course will be taught through lectures, will be physical and theoretical, uses in class exercises, research and all knowledge will be shared on a common blog.

**Session 1: Technology and architecture – and Architecture and Technology**
15th January 2015
In the first session we will aim to understand what Technology is, how Technology links to Architecture through products, materials, different industries and how it translates scales & process into our design field.

**Session 2: Dreams & Drivers**
22nd January
We discuss dreams and drivers, in the context of technology in architecture revealing existing and creating new links between technology and architecture. A history and utopian view. To understand and apply technology we need to understand how others have realized their dreams through means of tools and what drove them to the desire of certain changes in architecture. Are we returning to architecture as an environment? And can data and material drive and provide tools to create possibilities and extend our dreams?

**Session 3: Different industries & optimization**
29th January
In this session we look to other industries for inspiration to link their technologies into architecture. We will discuss, biology, the car and airplane industry, and their way of how they “design”. With other
words, how do their optimum goals drive technological innovative solutions? Optimization in three unique ways will be discussed and their feedback into architecture questioned.

Session 4: Technology & fabrication - their unique processes
5th February
Fabrication is one of the key drivers in the link between Technology and Architecture and the way we think about producing it, from “unique” to “mass customisation”, back to “unique but in series”. We will address technology & fabrication from nano- to construction- scale and the link between machine product assembly and performance.

Session 5: Design methodology: Systems thinking & interacting parameters
19th February
We explore systems thinking as a way to dissect and play with other field’s methodologies and adapt them to architecture. We explore the driving parameters of a system, understand their impact, alter the system and adapt it. Redefine the links between input, transformation and output.

Session 6: Building Information Modelling & Performance
26th February
We question the impact of information, data, how do we use it in different part of the design process and in different parts of architecture as building information. How does it enable to bridge between disciplines, or the digital and the physical? What is the information we might want to put into a building, how is its information set out. Is it free to download, does it link to performance etc.

Session 7: Geometry in-forms
5th of March
Geometry does not only generate forms, but informs new logics ways of thinking about design. It has unique links to fabrication, construction, material, performance and questions and drives a form of mathematical construct.

Submission requirement: Constructing the dream
We explore Technology in Architecture where it brings new design methodologies, the relation between in an output, use of “machines”, data, information and materials, at the scale and use of architecture. This year the exercise will be driven by the enabler of “Constructing the Dream” & “The role of the Constructed”; for example; constructing at a distance, or without hands, or how does geometry or data enable us to build different, can we build quicker, or just with one material? what if it the constructed can interact with the environment, or does cost half as much, is enabled to be built by people that have no knowledge about construction, etc.

We use our own fascination related to construction to inform or develop a dream, the result can be a physical model, a machine, a design mythology or data input, but it needs to prove an application in architecture.

Recommended reading list
“Rethinking technology; A reader in Architectural Theory” -W. Braham, J. Hale (2007)
Peter rice; “an engineer imagines”, (1994)
“Coop Himmelb(l)au” – Press sheet, Wolf D. Prix / W. Dreibholz & Partner ZT Gmbh
J.G. Ballard. Vermillion sands
“vacuumatics” (or lightweight PRINT)
“Adaptation in Natural and Artificial systems”, John H Holland (1975)
“Space reader, heterogeneous space in Architecture”, Hensel, Hight & Menges, 2009
“Lightness”, Adriaan beakers
“Flexible, architecture that responds to change”, Robert Kronenburg, (2007)
“Manufacturing processes for design professionals”, Rob Thompson, (2007)
“Collapsibles, A Design Album of Space-Saving Objects”, Thames & Hudson, 2001 Per Mellerup

Manja van de Worp trained as an architect and structural engineer at the Technical University of Eindhoven and Emtech at the AA and has been teaching there since. Her interests lie in finding synergies between structural design and architecture through technology, geometry and fabrication. She has worked for Arup in London in the Advanced Geometry Unit, and Advanced Technology and Research group and is now the Principal of NOUS Engineering London. In addition she teaches at the IAAC in Barcelona and runs international workshops dealing with structural geometry.

FORM ENERGY AND ENVIRONMENT
MOHSEN ZIKRI
Thursdays 10am to 11.30am

The course explores design territories where architecture and engineering converge to create exciting, sustainable and environmentally friendly buildings. Lectures have a common environmental theme. We will examine buildings in the world’s different climates, where architecture benefited from engineering solutions involving the dynamics between building form, energy and the environment.

Sustainability issues, passive design and renewable energy are examined, to explore innovative design solutions for different buildings ranging from residential to skyscraper. We will review choices of facades and their impact on Carbon-footprint and occupants’ comfort. We will examine how computer modelling tools (CFD) have been used to stretch the design boundaries of micro-environments, to produce comfortable buildings and minimise energy use. We will review world-class and award winning projects, where combined architectural and engineering strategies produced sustainable designs to benefit occupants and building owners, and also delight the general public.

By the end of the course students are expected to have a good understanding of the key drivers that influence the environmental design of buildings. The course aims to help students explore and adopt design strategies that deliver a holistic building design, with appropriate environmental solutions. To conclude the course Students will be asked to undertake a design assignment, as outlined below.

The seven-lecture course covers specific design territories where architecture and engineering strategies converge. Environmental issues and design are a common thread throughout the lectures. Each lecture covers a specific design topic and consists of two parts. The first deals briefly with the technical aspects of the lecture’s topic. The second features projects and competitions, related to the lecture’s topic. They include examples where imaginative engineers and world-class architects have collaborated to produce holistic designs and sustainable buildings to benefit occupants and building owners. Examples highlight how this approach has helped to win competitions and awards. During the lectures The Tutor will provide first-hand account of projects delivered with leading architects, including Foster, Perrault, Koolhaas, Rogers, Hopkins, Stirling, Make, Piano and Herzog.
The lectures articulate how best to respond effectively to the challenges of delivering solutions that combine Sustainability with desirable aesthetics, and technological advancement with practicality. An important aim is to create environmentally friendly buildings that delight occupiers and visitors alike.

**Lecture 1: “Comfort: People’s Rule OK?”**
The first lecture lays a key design foundation, by focussing on people’s needs and aspirations as occupiers and building owners. *Building Designers (architects & engineers)* have an obligation to create buildings for people’s benefits. Comfort provision is critical, due to its link to energy consumption and Sustainability. Major energy consumers such as airports, tall buildings, large sports venues and residential buildings, are targets for enhanced Sustainability. An in-depth knowledge of Comfort is essential, to explore and conquer new design territories in order to optimise energy use and capital costs.
The lecture examines components of the “Comfort boundaries” for internal and semi-external spaces (micro and macro environments). It reviews how advanced computer analysis has helped to stretch these boundaries, and develop unique solutions that are sustainable, practical and cost effective.

**Lecture 2: “Influences: Can Destiny Be Changed?”**
*Building Designers* have to deal with the inherent constraints imposed by the geographical location of buildings, climatic conditions, and economic aspects. This challenging scenario demands step-changes in design strategies to mitigate constraints and exploit environmental aspects and synergies. The aim is to create buildings that are sustainable, aesthetically pleasing, responsive to their environment, and economically viable.
The lecture explores synergies between the building form, its energy profile and macro / micro-environment. It reviews the complex palette of facade design available to *Building Designers* to explore new approaches to the environmental design of buildings. It highlights the benefits of a holistic design, where architecture and engineering are harmonised to achieve the desired goals.

**Lecture 3: “Energy: Does Performance Matters?”**
Global Warming, Sustainability, increased energy costs and tougher environmental Legislation are key challenges. *Building Designers* are expected to deliver buildings with a low Carbon-footprint.
The lecture explores the critical design drivers which influence the energy profile of buildings and their Energy Ratings. It reviews how imaginative *Building Designers* were able to make a positive environmental impact on nationally and internationally acclaimed buildings. Tall Buildings are briefly reviewed due to their significant energy use and the critical need to achieve an efficient energy profile.

**Lecture 4: “Nature: Help or Hindrance?”**
*Building Designers* have to deal with Nature’s forces, which may be their “friend or foe” at different times, and in equal measures. Working with nature, rather than against it, is very challenging in many situations. It requires a robust sustainability strategy to appropriately exploit natural forces and provide solutions that are economically viable.
The lecture examines the characteristics of Renewable Energy sources (wind, solar, sea, geothermal) and the challenges of using Natural Ventilation in urban environments. It reviews how Renewable resources can be harnessed to deliver Sustainable buildings and even entire cities.

**Lecture 5: “Sustainability: Myth or Reality?”**
Sustainability has been and will continue to be a critical design and economic issue. There are myths and misconceptions surrounding the fundamentals of Sustainability and its real impact. Sustainability is often misunderstood. In rare cases, it has regrettfully been “hijacked” by individuals or corporations to achieve other objectives.
The lecture explores the fundamentals of Sustainability and how they can be tested and evaluated. It reviews how Sustainability has been successfully implemented at a macro and micro levels within the Built Environment. Sustainability assessment tools (BREEAM, LEEDS etc.) are very briefly discussed.

**Lecture 6: “Intelligence: Smart or Intelligent?”**
Building Intelligence is a challenging topic, which is quite often misunderstood. Delivering truly Intelligent Buildings remains a prized aspiration of Building Designers. A technological gap still exists between Smart and truly Intelligent buildings. Yet a relatively modest degree of building Intelligence, such as web-based controls, can deliver enhanced performance, exciting operational features and economic benefits. Nevertheless, a fundamental and critical challenge remains, which is the provision of truly Intelligent facades.

The lecture explores this exciting design territory and reviews some of the design approaches made in the field. Also how best can building Intelligence be exploited to deliver affordable Sustainability.

**Lecture 7: “Modelling: Best Winning Streak?”**
Technological advancements and significant improvements in computer software and hardware, have created new opportunities for Building Designers to confidently stretch the building design boundaries. Advanced Building Physics and modelling techniques, have provided the confidence of creating a winning formula for delivering exciting and sustainable buildings.

The lecture provides a brief insight of advanced computer analysis and modelling techniques, which are transforming the way the micro and macro-environments of buildings are being designed. It reviews briefly the tools for static and dynamic computer analysis which are used to deliver Sustainable buildings that are also affordable. Examples are given where this approach has helped to conquer new design territories and win design competitions and awards.

**Submission Requirement:**
At the end of the course each student will be required to undertake a two-part design Assignment. In the first part, students will choose environmentally friendly buildings in the world’s different climates, and briefly research their sustainability features. They will also be asked to answer questions about topical issues covered in the Lectures. In the second part, students will be required to conceptually design their own version of a futuristic building project. Their aim should include stretching the environmental design boundaries, within their futuristic vision of the Built Environment.

The Assignment should contain applicable illustrations, including the student’s own sketches and diagrams. The Assignment text should be appropriate for the submission but not exceed 3,000 words. Students will be encouraged to progressively work on their assignment, to benefit from the knowledge and support provided during the lectures.

**Recommended Reading List and References (not in specific order)**

- The Green Building Bible, Volumes 1 & 2 (Publisher: Green Building Press) 2006
- BedZed (Beddington Zero Carbon), articles by Bill Dunster and Arup
- Eco Chambers, by Dr Susan Roaf - RIBA Profile April 1997 pg. 18-27
- Environmental Science in Buildings (5th Edition) by Randall Mc Mullan
- The Architecture of the Well-tempered Environment, by Hassan Fathi, Arch Press 1969
- Norman Foster: A Global Architecture by Martin Pawley, 1999
- Richard Rogers: Cities for a Small Planet -1997
- Le Corbusier: Ideas and Forms, Rizzoli International Publications 1986
- The Architecture of Richard Rogers, by Deyan Sudjic, 1994
- Renzo Piano Building Workshop, Volume 2, by Peter Buchanan
- Intelligent Glass Façade, by Andrea Campagno,1995
- The Future of Intelligent Buildings, Architecture, July 1995, pg. 61-65
- Intelligent buildings, Europe tomorrow, by Barrie Evans, Architecture July 1995, pg. 77-83
- Smart technology in construction, Arup Journal, April 1996 pg. 8-10
- Arup on Engineering, by Ed Dunster, Ernst & Sohn 1996
- Articles by late Sir Ove Arup on interdisciplinary design
- An Engineer Imagines, by Peter Rice
- GSW Headquarters, Berlin, Arup Journal, Apr 1995 pg. 11-17
- Sir Norman Foster - Commerzbank Frankfurt, by Volker Fischer, 1997
- Commerzbank Frankfurt: Prototype for an Ecological High-rise By C. Davies, 1997
- BCO Guide for Tall Buildings (RIBA publication), Mohsen Zikri et Al 2005
- The Skyscraper Bioclimatically Considered – by Ken Yang
- Daimler Benz Offices, Richard Rogers, Arch Design, Jan 1997 pg. 39-41
- High Dividends: Inland Revenue, Nottingham, by P. Buchanan, Building no. 56, 1995 pg. 24-33
- The New Inland Revenue Centre, Nottingham, Arup Journal Jan 1997 pg. 3-8
- Tax haven: Hopkins & Partners at Nottingham, by Peter Fawcett
Websites – Links to Projects:
Many websites of major Architecture and Engineering firms often contain valuable information and data on notable projects.

Reference Books: Engineering Design Manuals:
- Chartered Institute of Building Services (CIBSE) — Design Guides series.
- American Society of Heating Refrigeration & Air Cond Engineers (ASHRAE) - Design Handbooks.

Mohsen Zikri  BSc(Eng), DMS, CEng
Mohsen is a Consultant and a former Director of Arup, the internationally acclaimed firm of consultants. He is a Chartered Engineer, specialising in the environmental design of buildings. His career at Arup, involved leading teams of structural and building services engineers, in the design and delivery of landmark projects in the UK and worldwide. He worked closely with leading architects and many of his projects feature innovative and environmental solutions. His UK projects include Tate Modern, Albion Riverside and Orbit London 2012 Olympics. His international projects include: Lille Congreexpo, Berlin Velodrome & Swimming Pool, Cancer Research Center at Stanford University, and new Singapore National Stadium. Some of Mohsen’s projects won national and international awards. Mohsen’s speaking and teaching topics at conferences and universities include Sustainability, environmental design of buildings and cutting-edge design technologies. He co-authored a RIBA interdisciplinary Design Guide and was responsible for Arup’s Concept Design Guides.

The Course

The TS5 Design Thesis offers fifth year students the opportunity to engage in detail technical design work where all the technical knowledge, experimentation and skills are applied into one or several technical aspects of their project work. The most suitable scenario and opportunity for this application is afforded by the student’s very own design work developed as part of the Unit work. It is the aim of the Technical staff to provide each student with the technical wherewithal to develop and materialise one or several technical aspects of their project.

The Scope

The choice of the topic and scope of the TS5 Technical Design Thesis is key to the success of the TS5 Design Thesis. The scope depends on the specific Unit Agenda. The TS5 Design Tutors are all aware that TS wants to support and underpin the great variety and plurality of approaches of individual Diploma Units. One of the implications of this approach is to make the TS5 as integrated into the Unit Project as possible.
Submission requirements: T5 Design Thesis

The submissions are documents and models that present evidence from digital and physical experiments, research, case studies of related artefacts, processes and buildings culminating in a technical design thesis assessed at Interim Review and Final Submission. The Interim Review will be a tabletop presentation by each student to a panel of TS Staff, Unit Staff and technical consultants to the unit/project. The Final Review will be conducted by the TS staff who will review the documents and models, and make the assessment. Students will not be present at the Final Submission assessments.

The process during the Year:

Early in the year the Diploma Master of Technical Studies with other members of the T5 Technical Design Tutors visit each Unit in their Unit space, with the tutors present. During this two-hour seminar, examples of previous successful submissions are shown; these are left with the students to examine, and students may borrow these at anytime during the year. At this meeting the scope of work is discussed, suitable methodology of physical and digital simulations and experiments are presented and discussed. Generalised cautions are given about the inclusion of excessive amounts of digital material from internet sources, and it is pointed out that what is required is a Thesis on architectural technology rather than a discussion focused solely on earth sciences, physics and chemistry. The criteria for assessment are discussed.

Javier Castañón as Diploma Master will coordinate the progress of each individual T5 Design Thesis.

Interim Review, Final Submission, High Pass Panel:

Unit Masters are required to outline their Technical Studies unit approach as part of their unit presentations at the beginning of the year. This is intended to help define an area of technical investigation within which students can operate and pursue a more specific agenda related to their individual project.

Two timeline options are offered to all Units:

<table>
<thead>
<tr>
<th>TS3 Design Project Option 1/Early TS</th>
<th>Interim Jury</th>
<th>16th to 20th February 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS3 Design Project Option 1</td>
<td>Final Submission</td>
<td>Friday 13th March 2015</td>
</tr>
<tr>
<td>TS3 Design Project Option 2/Late TS</td>
<td>Interim Jury</td>
<td>9th to 13th March 2015</td>
</tr>
<tr>
<td>TS3 Design Project Option 2</td>
<td>Final Submission</td>
<td>Monday 27th April 2015</td>
</tr>
</tbody>
</table>

The Interim Jury is held with the Unit Masters and TS staff. This is a table presentation with all students present in a jury like environment. The work will be discussed and verbal advice given as agreed between the TS and Unit staff. A written assessment will be given to each student outlining what needs to be undertaken for the Final Submission three weeks later.

High Pass - students who have achieved a good Pass at the Final Submission and whose work is agreed to have exceptional technical potential will have their work reviewed again by the High Pass Panel (TS Staff) on Thursday 7th May 2015. Students are encouraged to further develop their technical design work in digital and physical models. Students will not be present during the High Pass review but all High Pass projects will be available to view by the School Community on Friday 8th May 2015.

AA TS Criteria, mapped to ARB/RIBA:

1 The demonstration of the assimilation of the Course material and familiarity with concepts, strategies and analytical methods and tools;
be able to develop a hypothesis for an architectural technical design, and conduct in a creative and systematic manner the synthesis of structure, material and environment, within the cultural context and architectural domain defined by the Unit Studio. Be able to conduct research into appropriate fabrication and construction processes, in defined cultural, economic and social production contexts, and be able to form appropriate strategic proposals in relation to the architectural ambitions that inform the experimental exploration of the design proposal.

2 The demonstration of the ability for comparative analysis and meaningful generalisation;

- be able to conduct analytical case studies of architectural and industrial precedents, and abstract principles, processes and techniques from those case studies. Be able to determine the strategic significance of the analytical material in relation to the hypothesis driving the thesis.

3 The development of critical faculties and advanced conceptual skills;

- demonstrate the ability to conduct and collate critical analysis of precedents, and relate them to digital and physical design experiments, to concepts of structural, material and environmental science, and be able to make critical decisions as to their significance for the thesis.

4 The demonstration of clear structure, precise communication and presentation of work; and the referencing of sources of information using agreed conventions;

- to develop skills and confidence in the presentation of research, experiments and conclusions is well-structured arguments, and the use of properly attributed sources and references in the documentation of the Technical Design Thesis.

5 The demonstration of clear and appropriate formulation of hypotheses and arguments, and the ability to present and debate, and to deploy these for the planning and the pursuit of a research and design agenda;

- be able to set out and conduct research into architectural and industrial precedents and processes, form appropriate hypothesis for the materialisation and production of the architectural ambitions of the design, be able to formulate principles for a series of physical and digital experiments, and be able to inform and resolve the technical design thesis according to the research and experimental findings.

6 The demonstration of critical judgement and appropriate application of Course material and specialised knowledge to concepts and modes of architectural production;

- be able to creatively explore and resolve the central issues of a design, synthesising defined architectural ambitions with the structural, environmental and material research and experiments, into a well documented technical design thesis that is contextualised by proposals for fabrication and assembly that are situated in the cultural and economic domain of the Unit Studio.

These criteria will be discussed with each Unit Master and their students in the first term, and appropriate strategies for delivery of projects that are suitable in scope will be negotiated.
AA Media is an experimental testing ground for exploring and interrogating the tools of the discipline; tools with which we speculate, manipulate and play; compute, control and test; communicate, seduce, and provoke. Acting as both laboratory and training camp, it is a diverse, multidisciplinary program where unexpected collisions and obsessive attention to detail expose a rich seam of creative potential. Media Studies presents an opportunity to develop individual practice, where students hone their dexterity with established and progressive media, actively testing modes of production through focused acts of doing and making.

As techniques and concepts in fabrication, computation, and representation are regularly revised in the field, Media Studies deploys a range of skills aimed at both reinforcing and reinventing the methods in which students approach design and architecture. This year’s courses address diverse media including; video, photography, drawing, animation, narrative, physical assemblage, textiles, analogue and digital fabrication, electronics, web-based media, fieldwork and curation.

AA Media operates over the Autumn and Winter terms and is composed of three primary groups:

**Media Studies Core** courses are studio based and comprised of 8-sessions (for Intermediate) or 4-sessions (for First Year) that address a particular aspect of architectural production, within the scope of a single course topic. Media Studies courses are a required part of the First Year and Intermediate Schools and MS-Core courses can be taken for either MS1 or MS2 credit. AA unit tutors, as well as staff from workshops, computing and the AV department teach these weekly courses alongside specialists from outside of the school. Studio-based courses for Second Year students are open to any student enrolled in the Intermediate or Diploma School

**Media Studies Lab** courses are composed of a series of skills based one-day workshops open to students from across the school, that introduce students to fundamental techniques in major digital applications for architecture. Working with the AA Computer Lab, MS Lab courses cover many of the most common computer applications, from 3D modelling and computer-aided drafting to imaging, publication, digital computation and scripting, various physics-based analyses and other relevant software. Enrolment for MS-Lab courses are voluntary, as the inclusion of this group within Media Studies is provided as a means to help students that have particular interest in learning a specific application within a short period of time.

**AA Media Workshops** are one-off events, short introductions, tasters or demonstrations open to students across the school. Details of these workshops are posted on the AA Media website.

Kate Davies  
Head of Media Studies  
kate.davies@aaschool.ac.uk

All course info and regularly updated details can be found at:  
www.aa-media.com
MS1 / MS2 COMPULSORY COURSES [MS-Core]

Students in 1st and 2nd Year are required to fulfil submission requirements in Media Studies and these are outlined as follows:

**First Year: MS1 requirement**
Students are required to attend and complete the submission requirements for FOUR Courses (two in Term 1 and two in Term 2). As well, students must produce a bound submission containing the work of the four courses.

**Second Year: MS2 requirement**
Students are required to attend and complete the submission requirements for TWO Courses (one in Term 1 and one in Term 2). Students must submit a bound submission for each course at the end of each term.

**Note for 3rd Year students and above**
Whilst there are no submission requirements in Media Studies for the Diploma School, 3rd Year students and above are encouraged to attend courses in which they are interested. However, priority will be given to those students who are undertaking the course for submission purposes.

MS NONCOMPULSORY COURSES [MS-Lab]

Students from across the entire School are invited to participate in optional MS-Lab courses. These courses cover different digital applications in Term 1 and 2. Submissions are not required and students are not evaluated upon the conclusion of each course.

* The most current information on courses and workshops is available at [www.aa-media.com](http://www.aa-media.com)
First Year
All Term 1 and 2 Courses will be introduced on Friday 3rd October at 12.30pm in the First Year Studio Space. Registration will take place from 5.00pm on the same day.

Intermediate
All Term 1 and 2 Courses will be introduced on Friday 3rd October at 4.00pm in the Rear Second Presentation Space. Registration will take place immediately afterwards.

All Intermediate Term 1 Courses commence in Week 2 (week beginning 6th October) and run for eight consecutive weeks (excluding AA Open Week – Week 6). All second year students are required to undertake TWO Media Studies Courses (one from Term 1 and one from Term 2). The courses result in practical submissions both of which must be passed in order to complete the Media Studies submission requirement (MS2). Course conclusion and project submission will take place during the final course session. Intermediate Courses take place on Wednesdays.

All First Year Term 1 Courses commence in Week 2 (week beginning 6th October) and run for four consecutive weeks (excluding AA Open Week – Week 6). Course conclusion will take place during the last session of each of the four courses. A final Media Studies First Year submission must be completed and returned on Tuesday 17th March, 2015. First Year Courses take place on Tuesdays.

MS-Lab

MS-Lab Courses
A general introduction to the Media Studies Lab Courses will take place during Week 1 of Term 1. Students should check the Weekly Events for confirmation of time. There is no formal registration procedure for MS-Lab courses, therefore interested students may simply show up on the day of the relevant workshop course.

The first MS-Lab course takes place in Week 3 (week beginning 13th October), and successive courses continue according to the posted calendar on the AA Media website. MS-Lab courses run for one day only. As these courses are offered to students wishing to gain more technical skills in specific digital applications, submissions are not included in the course structures. MS-Lab courses take place on either Mondays or Saturdays.
All First Year students are required to undertake FOUR Media Studies Courses (two from Term 1 and two from Term 2). The courses result in practical submissions, all of which must be passed in order to complete the Media Studies submission requirement (MS1).

First Year students will meet with the Media Studies Course Tutors on Friday 3rd October at 12.30pm in the First Year Studio Space to discuss the courses on offer. Registration for courses will take place online the same day, and the classes will commence on Tuesday 7th October for four consecutive weeks excluding AA Open Week (Week 6). Attendance to all classes is compulsory.

Registration for Term 2 Courses will take place at the end of Term 1 and students will be reminded of the process via the Events List.

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**FIRST YEAR [MS-Core]**

**AUTUMN TERM:**

**PERIPHERAL LANDSCAPES**

Sue Barr  
North Jury Room  
Tues, 2-5pm

‘No place is boring if you’ve had a good night’s sleep and have a pocket full of unexposed film…’  
Robert Adams

Taking inspiration from the rich culture of landscape imagery throughout the history of photography, we will be using digital photography to examine landscape[s] at the edges of the city. Instead of photographing iconic architecture within the city centre we will be working at the periphery of the city; where urban/suburban landscapes are both complex and mysterious and the photograph is discovered only through committed observation.

During the course we will undertake onsite practical photographic workshops, although students will also be expected to visit the project site and make photographs during their own time. The course will result in the production of two large-scale photographic diptychs.

We will be using digital SLR cameras to undertake this project and onsite practical workshops will introduce students to the basics of camera controls.

**Session 1:** Tuesday 7th Oct / 11th Nov  
- Landscape Photography introduction: Including; 19th Century US Geological Surveys, F64 group, German/Dusseldorf School, Italian Topographics Movement...  
- Digital SLR technical workshop

**Session 2:** Tuesday 14th Oct / 18th Nov:  
- Onsite photographic workshop

**Session 3:** Tuesday 21st Oct / 25th Nov:
Onsite photographic workshop

Session 4: Tuesday 28th Oct / 2nd Dec:
- Class discussion and final course submission

ACTIVE MATTER
Shany Barath and Gary Freedman
No 33 First Floor Front
Weds, 2 - 5pm

This course examines fabrication techniques as potential activators of material systems. Working at the interface between matter, computed geometry and machinic properties, we will develop material catalogues translating visible and invisible properties into variables of effect, behaviour, scale and articulation. Using Rhinoceros, laser cutting, and CNC technologies to create a series of prototypes exploring possible design negotiations between machine and material.

*Please note this course is on Wednesday afternoons and combines a larger group of First year and Intermediate students in order to develop and build large-scale installation works.

I - THE FOUNDRY

Session 1: Wednesday 8th Oct
- Introduction to Material 1 & Material 2

Session 2: Wednesday 15th Oct
- Trajectory I_Material Design/Material Composition: Defining the formal implications of material composition and the construction of new materials.

Session 3: Wednesday 22nd Oct
- Trajectory II_Material Processes: Engaging with processes of making (digital fabrication techniques, technological innovations, reinterpretation of traditional techniques).

Session 4: Wednesday 29th Oct
- Trajectory III_Material Assemblies: Researching assembly and connection logics of multiple parts and in relation to defined materiality and constraints.

II - THE ARENA

Session 1: Wednesday 12th Nov
- Introduction to installation site
- Translating three trajectories to site-specific interventions.

Session 2: Wednesday 19th Nov
- Work in progress.
- Material Prototyping.

Session 3: Wednesday 26th Nov
- Work in progress.
- Material Prototyping.

Session 4: Wednesday 3rd Dec
- Installation presentation and selection of proposal for construction.
The course introduces the conceptual and technical aspects of orthogonal drawings in combination with collage and object-making procedures assuming that there is no difference between means of representation and that of design. The course will begin by drawing sections by dissecting found objects. Drawings will be further translated by collage making and object assemblage. These lessons will develop in parallel to discussions of seminal architectural writings on a systematic approach to representation. Students must approach drawings with an understanding of intrinsic formal attributes of objects using concepts of formal addition and subtraction. Such operations must then be carried over through to representation, illustrating static space as open to dynamic processes. The aim of the course is for students to develop a technical understanding of analytic drawing that both represents the known shape of an object, as well as hidden structures that represent the form of the object beyond its immediately visible form.

Session 1: Tuesday 7th Oct / 11th Nov
- Introduction; orthogonal drawings.
- Slicing objects and drawing sections.

Session 2: Tuesday 14th Oct / 18th Nov:
- Collage methods induction.
- Re-composition of objects and section drawings.

Session 3: Tuesday 21st Oct / 25th Nov:
- Translation of drawings into section models.
- Translation of models into drawings through unmaking process.

Session 4: Tuesday 28th Oct / 2nd Dec:
- The sessions conclude with short presentation of the works produced.
- Tell a story by reading objects, section and collage.

This course focuses on the potential of subtractive colour in creating/manipulating space. Students are encouraged to create their own distinctive notational system that is sensitive to space, time, light and the characteristics of materials. Students will be introduced to the sensibility and materiality of pure pigments with the focus on colour as matter, teaching how to make paint from pigments and to apply it and test it on different surfaces. In a series of workshops students will develop a sensitivity to the use of colour and tone in relation to the dynamics of space and light.

Session 1: Tuesday 7th Oct / 11th Nov
- Slide lecture
- Colour fundamentals
- Discussion about different possibilities of working with colour – students own experience, cultural conditioning and traditions.
Session 2:  Tuesday 14th Oct / 18th Nov:
- Short discussion about the individual ideas/proposals
- Short talk about pigments, binders and paints
- Visit to a specialist paint shop in Bethnal Green
- Beginning practical work

Session 3:  Tuesday 21st Oct / 25th Nov:
- Practical work continues – students learn how to make paint from pigments and also other methods of working with pigments, paints or inks. Students individually develop their projects (models, samples or other 3D forms )
- We shall talk and discuss various colour related topics as the work develops.

Session 4:  Tuesday 28th Oct / 2nd Dec:
- Finishing of the individual works
- Final course submission

CUT AND PASTE
Alison Moffett
No 33 First Floor Front
Tues, 2-5pm

First bridging the gap from craft to legitimate artistic technique by the early Cubists, collage has the flexibility to create images that can encompass the range from rich and concept-laden to purely minimal surface. Its strength is in juxtaposing unlikely scenarios or imagery, creating new unexpected narratives, which still allude to the source materials. The inherent fragmentation of images can be directly related to what it is to be modern, but the never settling quality of collaged elements also fits within a postmodern dialog. We will investigate different aspects of the technique, starting with the basics of materiality, color, and composition, and going on to work through historical and contemporary examples from art and architecture. Students will create their own collages to work through the ideas addressed, leading up to the final project.

Session 1:  Tuesday 7th Oct / 11th Nov
- Figure/Ground – Play with Shape and Color
- Introduction. Look at Henri Matisse, Joseph Albers, Ellsworth Kelley, Lee Krasner, the Quilts of Gee’s Bend... etc.

Session 2:  Tuesday 14th Oct / 18th Nov:
- Modernism – Fragment and Text
- Ephemera, Surrealism, and the political Avant-garde. Looking at Braque, Pablo Picasso, Max Ernst, Filippo Marinetti, Vladimir Tatlin... etc.

Session 3:  Tuesday 21st Oct / 25th Nov:
- Appropriation – Cut and Paste
- Photomontage, the photograph, assemblage, and the postmodern. Looking at Hannah Hoch, Super Studio, Richard Hamilton, Archigram, Moholy-Nagy... etc.

Session 4:  Tuesday 28th Oct / 2nd Dec:
- Final submission
“The world is changing and information has become entertainment. Now the news is supposed to be as entertaining as going to the cinema. So the news has to have a logo and funny graphics, and a soundtrack to all that stuff. I bet you, if you sat down and plugged someone in, you’d find out that people are receiving entertainment fifty percent of their day, whether they were watching television or walking down the street looking up and billboards, or listening to the radio. The thing about this onslaught of entertainment is that, of course, it takes more blood now to really make people shiver, it takes bigger explosions, it takes more scandal, it absolutely has to be incest and fratricide to get people really going.”

Jodie Foster in an interview with Mike Figgis for Projections.

In these sessions we will make a 1500 frame animation using video technology and live action footage. That’s 1 minute in real time. In the first week we will also produce a short animated GIF. After looking at examples of animated work will we embark on an exploration of techniques and methods. Many examples of student work can be found at the URL’s below. No techniques are excluded but students must create their own soundtracks.

Session 1: Tuesday 7th Oct / 11th Nov
- Introduction to course; screenings of animated work. Introduction to software.
- The need to Storyboard.

Session 2: Tuesday 14th Oct / 18th Nov:
- Software look see*
- Discussion of storyboards, authoring and soundtrack.

Session 3: Tuesday 21st Oct / 25th Nov:
- WORK!

Session 4: Tuesday 28th Oct / 2nd Dec:
- Final session; finishing off animation, DVD authoring.
- Discussion.

The submission must contain 1 video file (as H.264), 1 animated GIF file with accompanying booklet explaining the animations concept with storyboard. The piece may be narrative or non-narrative. One of the course aims is create new, unexplored spaces within the video plane. Experimentation is the important factor in this project, not creating polished video artefacts.

Work from last year can be found at:
http://fyrvideo2013.tumblr.com/

previous material:
http://www.aaschool.ac.uk/fyrvideo/
http://www.aaschool.ac.uk/fyrvideo/index2.html
http://vimeo.com/channels/74686
TAKING MEASURE
Caroline Rabourdin
Rear Second Presentation Space
Tues, 2-5pm

Architects routinely use units of measure without challenging their origin or significance. Units like feet and inches refer to our direct experience of the world and the built environment, enabling us to intuitively take measure of the space around us. In this course we will look at the body and its relationship with geometry and architecture. We will draw and make using Euclidean geometry.

The propensity to standardize and categorise human dimensions in architecture can be traced as far as the Vitruvian man so we will start by measuring bodies and use geometrical instructions to draw 2D metric patterns, also called blocks, from the measurements. We will then manipulate the patterns and find our own geometries to turn these patterns into paper garments. Finally we will return to the 2D drawing to draw orthogonal projections of the constructions as well as the pattern as instruction drawing, complete with bespoke annotations.

Session 1: Tuesday 7th Oct / 11th Nov
• Introduction: geometry and standard measurements
• Taking measure of the body
• Drawing a 1:1 pattern from individual measurements using geometrical instructions

Session 2: Tuesday 14th Oct / 18th Nov:
• Introduction: the body and space
• Adapting and transforming the block
• Making a scaled paper garment

Session 3: Tuesday 21st Oct / 25th Nov:
• Introduction: orthogonal projections
• Orthogonal drawings from photographs and measurements
• Drawing the pattern

Session 4: Tuesday 28th Oct / 2nd Dec:
• Introduction: the instruction drawing
• Turning the pattern into a drawing
• Drawing and writing annotations
*Rooms for Term 2 courses will be posted online towards the very beginning of Term 2.

**PROJECTION AND SPECULATION**

Miraj Ahmed  
Tues, 2-5pm

The course will build on your knowledge of 2d and 3d orthographic projection and the importance of precision as a tool for the imagination, moving from measured drawings of an existing room, towards invented possibilities expressed through drawing and other media.

Projection and speculation introduces the notion of the forecast based on a given set of values combined with the imagined. As a means of representation, projective geometry such as 2d (orthographic) and 3d projections refer to not only what 'is' but also to something beyond – that which 'may be'. Projective drawings can be speculative in that they 'project' towards a possibility. For designers, architects and artists, these measured drawings can be tools that allow a series of exploratory steps, through a process of transformation, to a reality. In this scenario, the drawings are a means to an end. But it is possible for the drawing to be the object of attention – through its spatiality, materiality (of marks and paper) and relation to the space around it.

**INTRODUCTORY EXERCISE**

The journey begins with a very simple object on the first day – e.g. a box. It will be drawn orthogonally and in 3 dimensions; plan, elevation, section, oblique, axonometric, isometric. These drawings will become the means to transform geometries and speculate with increasing complexity – changes of scale, stretching folding and cutting, Mass, voids, multiples, re-combinations etc. Allied to the drawing process will be modelled examples of some of the form speculations that can again be drawn. After this you will embark on individual drawing projects based on a measured room that will take you through a drawing investigation through different media that will culminate with a series of final drawings.

1. **THE ROOM**

Measure a room and document the measurements as the basis for a scaled drawing. Survey drawings should not only represent the spaces in measure and geometry, but also other characteristics that are interesting – e.g. time, movement, micro-climate, light, sound, materiality, texture, smell, memory, scale, atmosphere etc. The purpose of this project is to acknowledge not only the familiar but to go beyond and represent the hidden dimensions of space. These spaces should be drawn at 1:50 initially - but reconsidered as transformation takes hold. Drawings will include plans, sections and 3d axo or iso. Drawings will be allowed to translate into other media. Data should be recorded – sketches, photography, video, sound recordings can all be used to document phenomena.

**PROCESS AND AIM**

This media studies studio is intended as a self-contained course and is valuable as a very useful tool for unit work – to build a very dextrous skill set. With the space of a room as starting point, the drawings generated will be further mediated through the use of model making, photography and computer and therefore stray far from origins taking on new ideas. The drawings will not only be a means of enquiry, but also objects in themselves – where the materiality of line and paper and value of the drawing as object will determine their status of works on paper.
Session 1: Tuesday 13th Jan / 17th Feb:
- Introductory Powerpoint talk – orthographic projection (plans, sections, elevations, 3d axonometric, isometric and oblique projections).
- Drawing the box. Exercise in drawing and transforming simple object (a box).
- Introductory talk – Perspective techniques.
- Drawing the room in orthographic and perspectival projections
- Presentation – Types of drawing in art and architecture.

Session 2: Tuesday 20th Jan / 24th Feb:
- Experimentation through transforming drawing to model to photography.
- Media: Mixing analogue with digital.
- Introduction to ‘colouring in’.
- Printing techniques - paper, ink, printing. Tutorials Gallery visit (pm)

Session 3: Tuesday 27th Jan / 3rd Mar:
- Studio works continue
- Drawing to model making to photography back to drawing.
- Tutorials

Session 4: Tuesday 3rd Feb / 10th Mar:
- Presentation techniques continued.
- Exhibition / installation of drawings and works.

ACTIVE MATTER
Shany Barath and Gary Freedman
Weds, 2-5pm

This course examines fabrication techniques as potential activators of material systems. Working at the interface between matter, computed geometry and machinic properties, we will develop material catalogues translating visible and invisible properties into variables of effect, behaviour, scale and articulation. Using Rhinoceros, laser cutting, and CNC technologies to create a series of prototypes exploring possible design negotiations between machine and material.

*Please note this course is on Wednesday afternoon and combines a larger group of First year and Intermediate students in order to develop and build large-scale installation works.

III - THE MASTERY

Session 1: Wednesday 14th Jan
- Introduction to selected scheme
- Design Optimization:
  1.Material
  2.Structure
  3.Assembly

Session 2: Wednesday 21st Jan
- Design Optimization:
  1.Material
  2.Structure
  3.Assembly
Session 3: Wednesday 28th Jan
  • Automated fabrication drawings and Installation production

Session 4: Wednesday 4th Feb
  • Automated fabrication drawings and Installation production

PERIPHERAL LANDSCAPES
Sue Barr
Tues, 2-5pm

“No place is boring if you’ve had a good night’s sleep and have a pocket full of unexposed film…”
- Robert Adams

Taking inspiration from the rich culture of landscape imagery throughout the history of photography, we will be using digital photography to examine landscape[s] at the edges of the city. Instead of photographing iconic architecture within the city center we will be working at the periphery of the city; where urban/suburban landscapes are both complex and mysterious and the photograph is discovered only through committed observation.

During the course we will undertake onsite practical photographic workshops, although students will also be expected to visit the project site and make photographs during their own time. The course will result in the production of two large-scale photographic diptychs.

We will be using digital SLR cameras to undertake this project and onsite practical workshops will introduce students to the basics of camera controls.

Session 1: Tuesday 13th Jan / 17th Feb:
  • Landscape Photography introduction:
  • Including; 19th Century US Geological Surveys, F64 group,
  • German/Dusseldorf School, Italian Topographics Movement...
  • and Digital SLR technical workshop

Session 2: Tuesday 20th Jan / 24th Feb:
  • Onsite photographic workshop

Session 3: Tuesday 27th Jan / 3rd Mar:
  • Onsite photographic workshop

Session 4: Tuesday 3rd Feb / 10th Mar:
  • Class discussion and final course submission

ONE-TO-ONE INSTRUMENTS
Shin Egashira
Tues, 2-5pm

The course will take place in between studio for drawings and Wood and Metal Workshop for 1:1 scale constructions. The aim is to develop design concepts that are closely linked with fabrication technique. We will use our body as site and construct performative instruments to be tested through application to the city. The subject to be constructed will be that of a fictional instrument, in which the process of drawing and model making will contribute to the eventual design of the instrument itself. Beyond the
conceptual process, the course will introduce technical knowledge on using wood and metal to construct their models. This will include the use of the most appropriate power machinery, hand tools, and hardware for individual body works.

**Session 1: Tuesday 13th Jan / 17th Feb:**
- Introduction: mapping and analysing a body.
- Induction: working with wood and metal

**Session 2: Tuesday 20th Jan / 24th Feb:**
- Making body parts
- Narrating scenario by imagining context
- Cutting, joining, welding

**Session 3: Tuesday 27th Jan / 3rd Mar:**
- Continue making and testing process

**Session 4: Tuesday 3rd Feb / 10th Mar:**
- Assembling
- Demonstrating

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**MATERIALITY OF COLOUR**
Antoni Malinowski
Tues, 2-5pm

This course focuses on the potential of subtractive colour in creating/manipulating space. Students are encouraged to create their own distinctive notational system that is sensitive to space, time, light and the characteristics of materials. Students will be introduced to the sensibility and materiality of pure pigments with the focus on colour as matter, teaching how to make paint from pigments and to apply it and test it on different surfaces. In a series of workshops students will develop a sensitivity to the use of colour and tone in relation to the dynamics of space and light.

**Session 1: Tuesday 13th Jan / 17th Feb:**
- Slide lecture
- Colour fundamentals
- Discussion about different possibilities of working with colour - students own experience, cultural conditioning and traditions.

**Session 2: Tuesday 20th Jan / 24th Feb:**
- Short discussion about the individual ideas/proposals
- Short talk about pigments, binders and paints
- Visit to a specialist paint shop in Bethnal Green
- Beginning practical work

**Session 3: Tuesday 27th Jan / 3rd Mar:**
- Practical work continues – students learn how to make paint from pigments and also other methods of working with pigments, paints or inks.
- Students individually develop their projects (models, samples or other 3D forms )
- We shall talk and discuss various colour related topics as the work develops.
Session 4: Tuesday 3rd Feb / 10th Mar:
- Finishing of the individual works
- Final course submission

VIRTUAL VS. ACTUAL
Kasper Ax
Tues, 2-5pm

The virtual will be introduced as a study on the optical and visual effects obtained in works of optical art. We will dissect some of these works and students will describe and develop one or several visual effects that afford an optical quality. This optical quality will then act as performance criteria for a geometric 3D exploration in Rhino + plug ins, where the aim is to manufacture an architectural piece through the use of 3D printing, laser cutting, vacuum forming or CNC milling.

Session 1: Tuesday 13th Jan / 17th Feb:
Analysis and reinterpretation:
- Introduction to OP Art. Analysis, discussion, inspiration and selection of works
- Introduction to basic Rhino commands and 3d modeling with NURBS and polygons.
- Dynamic projections. Reconstruction and transformation of the optical/visual effects in 2D and 3D

Session 2: Tuesday 20th Jan / 24th Feb:
Prototype 1 - Transformation from virtual to actual:
- Representation, materials effects, textures and colours. Rendering with V-ray and Maxwell.
- Prototype 1: Transformation from virtual to actual. Preparation of model files for digital manufacturing.
- Introduction to digital prototyping lab.

Session 3: Tuesday 27th Jan / 3rd Mar:
Prototype 2 - Resolution and hybridization
- Rhino + plug-ins, articulation and iterations through repetition and proliferations.
- Dynamic view points
- Physical model techniques, hybridization, fabrication and prototyping

Session 4: Tuesday 3rd Feb / 10th Mar:
Installation:
- Exaggeration and distortion.
- Installation, framing and curating experience.
- Presentation

WORLD WIDE WILD
Oliviu Lugojan-Ghenciu
Tues, 2-5pm

The Motion Studio is the Architectural Association’s time-based media and digital storytelling garage. We explore digital tools through analog processes, dismantling workflows and improvising pipelines, prototyping online spaces for a real-time, wireless wilderness.

Over four sessions we will explore the wild landscapes of the Internet, the anatomy of a website and the online tectonics that supports it. The course is focusing on the use of HTML5 technologies, creating a
website as a digital spatial experience. Understanding the online medium, we will be building using the multi-scale technologies that surround us and which we inhabit more and more frequently.

http://aamotion.net

Session 1: Tuesday 13th Jan / 17th Feb:
- Anatomy of a website and the tectonic of internet
- Introduction to web technologies and HTML5

Session 2: Tuesday 20th Jan / 24th Feb:
- Design and Build

Session 3: Tuesday 27th Jan / 3rd Mar:
- Design and Build

Session 4: Tuesday 3rd Feb / 10th Mar:
- Website uploading, sub-domains and redirections
- Launching and promoting a website - web branding
All Second Year students are required to undertake TWO Media Studies Courses (one from the Autumn Term and one from the Winter Term). The courses result in practical submissions both of which must be passed in order to complete the Media Studies submission requirement (MS2).

Second Year students will meet with the Media Studies Course Tutors on Friday 3rd October at 4.00pm to discuss the courses on offer. Registration for courses will take place afterwards online on the Media Studies website (www.aa-media.com) and the classes will commence on Wednesday 8th October for eight consecutive weeks excluding AA Open (Week 6). Attendance to all classes is compulsory.

Registration for Winter Term Courses will take place at the beginning of the Winter Term and students will be reminded of the process via the Events List.
You are invited to extend your knowledge of measured projective drawing, explore its systems and discover possibilities inherent within these forms of representation. Drawings will take you on a journey of speculation starting from a given space or object, acquiring new criteria, concerns and values along the way. Drawings will be further mediated through the use of model making, photography and the computer enabling deviations from origins. The drawings will not only be a means of enquiry, but also become objects in themselves – works on paper.

Projective drawings can exist in their own right - where the speculation is the main thing - with no end game but the contemplation of an idea - made valid by accuracy and precision. These drawings suggest a potential and a convincing (tested) possibility.

The studio will introduce the concept of manual measured, projective drawings from orthogonal, 3d techniques and perspective. You will take measured projection drawing and explore its potential. Techniques of manual technical and freehand drawing will provide the core of the studio. Card models and computer techniques will feed into the drawing and vice versa. Painting techniques will also be introduced towards the latter part of the studio in order to inform the final works on paper.

INTRODUCTORY EXERCISE

The journey begins with a very simple object on the first day – e.g. a box. It will be drawn orthogonally and in 3 dimensions; plan, section, elevation, oblique, axonometric, isometric. These drawings will become the means to transform geometries and speculate with increasing complexity – changes of scale, stretching folding and cutting, Mass, voids, multiples, re-combinations etc. Allied to the drawing process will be modelled examples of some of the form speculations that can again be drawn. After this students will embark on individual drawing projects based on a selection of objects or space that will take them through a drawing investigation through the term and culminate with a series of final drawings.

EXPLORATION

Speculate with object and space using projective drawing as starting point. The process of measuring and projection will be applied to both object and space - to interior and exterior. There is a choice of two possibilities as measured starting point:

1. A room or
2. A small object that can easily be measured and manipulated with an exterior and interior.

1. THE ROOM

Measure a room and document the measurements as the basis for a scaled drawing. Survey drawings should not only represent the spaces in measure and geometry, but also other characteristics that are interesting – e.g. time, movement, micro-climate, light, sound, materiality, texture, smell, memory, scale, atmosphere etc. The purpose of this project is to acknowledge not only the familiar but to go beyond and represent the hidden dimensions of space. These spaces should be drawn at 1:50 initially - but reconsidered as transformation takes hold. Drawings will include plans, sections and 3d axo or iso.
Drawings will be allowed to translate into other media. Data should be recorded—sketches, photography, video, sound recordings can all be used to document phenomena.

2. THE OBJECT

Objects carry with them all sorts of ideas. They respond to the pragmatics of use, material, the body, cultural meaning, etc. We are surrounded by objects and are both knowledgeable and blind to them at the same time. An object will be measured and explored through meticulous and precise photos and drawings; freehand and measured projective drawings—plans, elevations, 3D projections (axo or iso). Projective drawings and the process of dissection will become the starting point to be investigated, manipulated and transformed.

PROCESS AND AIM

This media studies studio is intended as a self-contained term (8 weeks) and is valuable as a very useful tool for unit work—to build a very dextrous skill set. Whether room or object as starting point, the drawings generated will be further mediated through the use of model making, photography and computer and therefore stray far from origins taking on new ideas. The drawings will not only be a means of enquiry, but also objects in themselves—where the materiality of line and paper and value of the drawing as object will determine their status of works on paper.

Session 1: Wednesday 8th Oct
- Power-point talk on modes of representation (examples)
- Intro to orthographic 2d and 3d drawing techniques (measuring and drawing a box).
- Studio practical (beginning of short project - An Object in Space / The Space of an Object)
- 2d and 3d drawing techniques; plan, section, elevation, oblique, axonometric, isometric.

Session 2: Wednesday 15th Oct
- Power-point talk - Introduction to perspective techniques.
- Studio practical – drawing the object continued, in context (drawing and photo)

Session 3: Wednesday 22nd Oct
- Studio practical – drawing the object continued – object transformation and metamorphosis. Collage and new narratives through mixing media (model, photo, computer etc.). Gallery visit (pm)

Session 4: Wednesday 29th Oct
- Studio practical – framing, layout, etc. continued. Table top presentation and discussion of the work to date.

Session 5: Wednesday 12th Nov
- Talk and studio practical on composition techniques; layout, colour, paper, print, framing, mounting techniques etc.
- Studio practical and tutorials

Session 6: Wednesday 19th Nov
- Studio practical and tutorials

Session 7: Wednesday 26th Nov
- Studio practical – framing, layout, etc. continued. Tutorials.

Session 8: Wednesday 3rd Dec
This course provides a comprehensive, digital toolbox for designing, representing and manufacturing spatially complex NURBS geometries using Maya and Rhino + plug ins. It revisits the acclaimed early 20th century art movement 'Dadaism' to understand the spirit that enabled unique creativity and became the cause of modern art's leap into space through installation art. This will ignite an immediate, intuitive creativity by offering a brief liberation from conventional architectural constraints (function, context, program, scale etc.) and enable us to output intricate, abstract architectural pieces of various materialities, through the use of 3D printing, laser cutting, vacuum forming and CNC milling.

**Session 1: Wednesday 8th Oct**
Analysis and references:
- Introduction to Dadaism, discussion and analysis of main works
- Inspiration and reference hunting.
- Hybridization and collages in Photoshop

**Session 2: Wednesday 15th Oct**
Reinterpretation in 3D space:
- Rhino + plug ins
- Rebuilding collages in 3D

**Session 3: Wednesday 22nd Oct**
Visualization:
- Rhino + plug-ins.
- Visualization, rendering with V-ray and Maxwell.
- Introduction – Digital Prototyping Lab

**Session 4: Wednesday 29th Oct**
Prototype 1 - Articulation, surface and volume:
- Rhino + plug ins
- Digital prototyping
- Volumetric articulation and iterations
- Resolution and scale

**Session 5: Wednesday 12th Nov**
Prototype 2 - Patterns:
- Rhino + grasshopper
- Digital prototyping
- Patterns, textures, material effects
- Translation from visual to tangible

**Session 6: Wednesday 19th Nov**
Prototype 3 - Final piece:
- Rhino + grasshopper
• Iterations and variations
• Digital prototyping

Session 7: Wednesday 26th Nov
Fabrication:
• Work in progress
• Finalization of prototype 3

Session 8: Wednesday 3rd Dec
Presentation:
• Presentation of prototype
• Installation, discussion and summary

SHAPES OF FICTION A: METACAMERA
Charles Arsène-Henry
South Jury Room
Weds, 2-5pm

“Reality might be a phenomenon that has never been observed...”

Jean-Luc Godard

You will enter a research vessel moving towards a new state of fiction.

Existing novels, poems, films and video games will be approached as a series of faceted volumes to be examined with a sense of care, slowness and wonder.

A metaphor, a dissolve, a gameplay, the shift in the use of a pronoun, phosphorescence, a slow tracking shot or an ekphrasis might all become landscapes of exploration.

Plugged onto the continuous presence of a 3d portable printer, these augmented readings will lead to the production of ambiguous objects existing in the common conceptual geometry of a model, a diagram, a script and a score.

Session 1: Wednesday 8th Oct
• Introducing science-fiction and metafiction as two forms of access

Session 2: Wednesday 15th Oct
• Introducing two theoretical devices: metacamera and stylus

Session 3: Wednesday 22nd Oct
• Study and Diagrams based on Existenz by David Cronenberg and Sword and Sworcery by Superbrothers

Session 4: Wednesday 29th Oct
• Study and Diagrams based on Good Old Neon by David Foster Wallace and Stanley Parable by Davey Wreden
This course examines fabrication techniques as potential activators of material systems. Working at the interface between matter, computed geometry and machinic properties, we will develop material catalogues translating visible and invisible properties into variables of effect, behaviour, scale and articulation. Using Rhinoceros, laser cutting, and CNC technologies to create a series of prototypes exploring possible design negotiations between machine and material.

This course combines a larger group of First year and Intermediate students in order to develop and build large-scale installation works.

I - The Foundry

Session 1: Wednesday 8th Oct
• Introduction to Material 1 & Material 2

Session 2: Wednesday 15th Oct
• Trajectory I _Material Design/Material Composition: Defining the formal implications of material composition and the construction of new materials.

Session 3: Wednesday 22nd Oct
• Trajectory II _Material Processes: Engaging with processes of making (digital fabrication techniques, technological innovations, reinterpretation of traditional techniques).

Session 4: Wednesday 29th Oct
• Trajectory III_ Material Assemblies: Researching assembly and connection logics of multiple parts and in relation to defined materiality and constraints.

II - The Arena

Session 5: Wednesday 12th Nov
• Introduction to installation site
• Translating three trajectories to site-specific interventions.

Session 6: Wednesday 19th Nov
• Work in progress.
The course will focus on the (re)-design and fabrication of an existing table in full scale - 1:1. Each student will choose an existing table (original) and work from that towards a fresh construction strategy for the fabrication of a Replica Structure. Our sole material will be 12mm sheet material (birch plywood). All components will be designed and produced with the use of CNC milling technology. Our sense of material and constructive economy will be at stake. Issues of weight, porosity and composition should be considered.

The aim of the course is to test the application of CNC fabricated sheet material against an existing utilitarian designed object. The task is to be inventive towards a material limitation and to utilize design through novel joining technologies. Imagine a Jean Prouvé or Gio Ponti table, designed and constructed in 12mm birch-ply-wood. What design decisions are to be made? What structural and economical constraints challenge our sense of beauty? What is your sense of Beauty?

We will work in different scales from a 1:20 paper model to the 1:1 detail. Through the use of scaled laser cut models we optimize and structurally test our design. Deviations will occur! Our re-design should be intentional not random but with a sense of play. Is it still a table? All structural decisions have a design consequence or the other way around. We like to aim for a physical testable result, nothing virtual; lets say your mother should be able to enjoy and use your Replica Structure.

Through a process of re-construction we will not only learn to understand the nature of the original but also our own scope of design. The course will culminate with a fabrication trip to Hooke Park.
- Fabrication seminar
- Test models (digital and analogue)

**Session 4:  Wednesday 29th Oct**
- Individual tutorials
- CNC – fabrication
- Scale – economy – design

**Session 5:  Wednesday 12th Nov**
- Group tutorials
- Fabrication

**Session 6:  Wednesday 19th Nov**
- Individual tutorials
- Fabrication
- Documentation of design process

**Session 7:  Wednesday 26th Nov**
- Group tutorials
- Fabrication
- Mock-up printed submission

**Session 8:  Wednesday 3rd Dec**
- Final presentation
- Course Submission

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**FIELD WORK**
Kate Davies
South Jury Room
Weds, 10-1pm

We are hunting the invisible, the intangible and the elusive, as we explore the hidden dynamics of site through active and obsessive ‘field recording’. From our observations, readings and measurements, notational systems will be developed in meticulous notebooks to describe relationships, events and occurrences that defy capture in an image. We test the limits of the visual, looking beyond the depiction of physical things to explore alternative languages with which to describe the world.

The course explores the potential actions and operations of the architect in the field and how those practices can generate a particular, peculiar kind of conceptual work that mediates site and studio. We investigate how these site practices might be informed by the fieldwork of disciplines such as archaeology, geography, science and anthropology, as well as art practice, as we actively play with notions of the site-specific and the in situ, and seek to unravel the complexities of place through acting into and drawing out of the field.

**Session 1:  Wednesday 8th Oct**
- Studio session
- Introduction/ discussion of site/field work
- The field journal
- Preparation of field tools, modes of survey/ recording
Session 2:  Wednesday 15th Oct
- Site Visit
- Field notes and observation [qualitative]
- Group discussion of initial observations
- Documenting the process

Session 3:  Wednesday 22nd Oct
- Studio session
- Developing notational systems from initial field notes
- Discussion of site instruments

Session 4:  Wednesday 29th Oct
- Studio session
- Finalise first notation set
- Development of site instruments

Session 5:  Wednesday 12th Nov
- Site Visit
- Field notes, actions and observation [quantitative]
- Field recording/data logging/ measurement
- Documenting the process

Session 6:  Wednesday 19th Nov
- Studio session
- Drawing as observation/ abstraction/ notation/ instruction
- Further development of personal language/ media for site ‘drawings’

Session 7:  Wednesday 26th Nov
- Studio session
- Development of final works

Session 8:  Wednesday 3rd Dec
- Presentation of final works
- Group discussion.

DRAWING IN THE NATION’ CUPBOARDS I - SEEING YOUR WAY TO DRAW
Anderson Inge AIA  FRBS
No 33 First Floor Front
Meeting at various collections near AA
Weds, 10-1pm

“I draw like other people bite their nails.”

Pablo Picasso

“I’d always wanted to know the difference between a mark that was art and one that wasn’t.”

Roy Lichtenstein
Drawing well begins with seeing well. And, the most effective way to improve seeing is through language. This course will be saturated with looking and drawing, and talking about both. We will manipulate line and tone as readily as we do words, as we nose around the range, complexity and expressiveness available through drawing.

Each session will have a distinct theme, an exploration of a distinct aspect, type or potential of drawing. The sessions will begin with a short talk or demonstration, but the bulk of our time will be spent actively working through a series of exercises developed to draw something out of us.

**Session 1: Wednesday, 8th Oct:** meet at British Museum *Clocks Gallery*, 1st Floor
- A vocabulary for seeing
- All in one square inch
- A rhythm for looking

**Session 2: Wednesday, 15th Oct:** meeting at Tate Britain, Thames entrance
- The narrative potential of multiple drawings; storyboards
- Wrestling with scale
- Awkward objects
- Peculiar perspective

**Session 3: Wednesday, 22nd Oct:** beginning with seminar *A Vocabulary of Form*, at Bedford Sq. (No 33 First Floor Front), then for drawing session in BM King’s Library *Hall of Enlightenment*, west side of Great Court.
- Beyond object-hood
- The narrative potential of multiple drawings; storyboards

**Session 4: Wednesday 29th Oct:** meet at British Museum Information Desk, to draw in the Parthenon Marbles (Gallery 18)
- Tone before line
- Drawing life forms
- Monotone – monotony

**Session 5: Wednesday 12th Nov:** drawing al fresco at Covent Garden (meeting at the AA)
- The imagined section
- Structure and weight

**Session 6: Wednesday 19th Nov:** drawing session behind the scenes in the BM’s *Prints &
- Deconstructing drawing
- Considering style

**Session 7: Wednesday 26th Nov:** drawing session at the BM’s Americas Gallery, meet at the museum’s Information Desk
- Reflecting tectonic
- Materials & fabrication
Session 8: Wednesday, 3rd Dec: Meeting at Bedford Sq. (in room assigned for course)

- Pin-up Review of the term’s work.
- Hand-in of:
  - Simple booklet summarizing work for term
  - CD containing JPGs of work for the term, and booklet file.

PAINTING ARCHITECTURE I
Alex Kaiser
No 32 Second Floor Back
Weds, 10-1pm

“All ideas are secondhand, consciously and unconsciously drawn from a million outside sources. We are constantly littering our literature with disconnected sentences borrowed from books at some unremembered time and now imagined to be our own.” — Mark Twain

Throughout this course we will be creating both small and large-scale drawings using projections such as axonometric, orthographic & isometric. We will use drawing not as a final outcome - but as an iterative process to explore certain investigations, tectonics, and stories. Through adopting the modus operandi of the musician sampling sounds found in the street, or of the video artist splicing together a piece of film from existing snippets of video, we will create and splice together samples extracted from design, architecture, toys, inventions, mechanics and so on. Employing the act of ‘digging’, we will first sample these existing spaces, elements and functions and re-construct them in order to understand the precise nature of them. A series of taxonomies will be created from the constructs, which will then be re-mixed together into new architectures and landscapes. We will focus on techniques and methods such as; digital painting, collaging and line/hand drawing. Throughout the course large scale drawings and paintings will begin to manifest themselves slowly through an iterative process of digital-analogue alchemy.

Session 1: Wednesday 8th Oct
- Hand drawing techniques + working with line drawings
- Developing analogue + digital workflow

Session 2: Wednesday 15th Oct
- Creation of a drawing taxonomy
- Photoshop collage + brush techniques
- Introduction to light, shadow, tone + composition in drawing

Session 3: Wednesday 22nd Oct
- Developing the orthographic projection (Plan/Section/Elevation)
- Utilizing the drawing to explore potential concepts + scales

Session 4: Wednesday 29th Oct
- Finalising the orthographic drawing
- Axonometric drawing techniques
THE HOUSEHOLD GLITCH MOUNTED REGIMENT
Oliviu Lugojan-Ghenciu
No 33 First Floor Back
Weds, 10am-1pm

The Motion Studio is the Architectural Association’s time-based media and digital storytelling garage. We explore digital tools through analog processes, dismantling workflows and improvising pipelines, prototyping real-time experiences for a real-time digital environment. The 8 weeks course* will focus on methods of inputting, processing and outputting movement in a 3d real-time digital environment. We will use: 3d motion tracking, non-linear 3d animation, real-time render engines, VR technologies and projection methods to create interactive ON/OFF screen based installations. The course focuses on real-time 3d animation pipelines and workflows, using both software and hardware in a spatial related context. Raw visual aesthetics and intriguing graphic languages will be used to bring to light the restless and digital stories that surround us. We are teasing the border between screen and realm, approaching interactive animation, game design and installations as a process of choreographing space in yoctoseconds.

* certain phases of the course might involve short trips

http://aamotion.net

Session 1: Wednesday 8th Oct
• Introduction to real-time, 3d digital media
• Software and hardware anatomy for real-time
• 3D Animation (Cinema4D/Maya)

Session 2: Wednesday 15th Oct
• 3D Motion tracking & rigging (Cinema4D/Maya & Kinect)
• Introduction to real-time engines (Unity3D)

Session 3: Wednesday 22nd Oct
• 3D environment implementation in real-time engines (Unity3D)
• 3D Animation (Cinema4D/Maya)
Session 4: Wednesday 29th Oct
• 3D Animation (Unity3D)
• Virtual Reality implementation (Oculus Rift)
• Real-time video pipelines (Syphon)

Session 5: Wednesday 12th Nov
• Interaction, node-based visual programming (PlayMaker)
• Design and build

Session 6: Wednesday 19th Nov
• Physical inputs in digital environments
• Design and build

Session 7: Wednesday 26th Nov
• Design and build
• OFF Screen based publishing (site specific digital installations)
• ON Screen based publishing (Mac, Win, Linux, iOS, Android, WebGL)

Session 8: Wednesday 3rd Dec
• Documenting interactive installations
• Motion graphics, Compositing & Editing (AfterEffects)
• Multi-platform publishing

EXHIBITION PRACTICES
Capucine Perrot
No 33 Ground Floor Back
Weds, 10am-1pm

Exhibition Practices draws upon emblematic modern and contemporary art exhibitions to look at the interrelationships and mutual influences of curating, architecture and exhibition design. We will investigate selected exhibitions and their various components: the museum space, the curatorial statements, layout, display devices, floor-plans, archival material, catalogues and reviews to examine the ways in which exhibition design continues to play a crucial role in the presentation and understanding of modern and contemporary art.

Each student will research one exhibition case study with a view towards synthesising the key components of the exhibition – the artworks, the curatorial concept, and the institution – in order to conceive of a new exhibition design that will be articulated over eight sessions through various media (drawings, sketches and audio/video) to culminate in a model that re-presents the exhibition.

Through a selection of key art historical moments, which have often coincided with innovative architectural displays, this course will also serve as a crash-course in Modern and Contemporary art. Exhibition Practices will include site-visits to exhibitions in London and meetings with curators.
• Case-study Presentations on Context: Institution, Curator & Exhibition Design
• Each student will be asked to make a 10-minute presentation following the outline explained in class.

Session 3: Wednesday 22nd Oct
• Case-study Presentations on Content: List of works, the artist’s perspective
• Each student will be asked to make a 10-minute presentation following the outline explained in class.

Session 4: Wednesday 29th Oct
• New exhibition concepts
• Each student will be asked to present a written concept of the re-imagined exhibition design alongside three different proposals of alternative exhibition design, taking into account preliminary research of the original exhibition.

Session 5: Wednesday 12th Nov
• Individual meetings
• Individual meetings to review the development of ideas and plans for models. Each student will be asked to present and discuss up to three plans and sketches for models referring back to the written exhibition concept.

Session 6: Wednesday 19th Nov
• Field trip
• Off-site exhibition visit and meeting with curator.

Session 7: Wednesday 26th Nov
• Preliminary model
• Each student will be asked to make a final 10-minute presentation of the exhibition concept and the preliminary model. Feedback will be given during this class, which should be incorporated into the final submission.

Session 8: Wednesday 3rd Dec
• Final submission and photography of final model in Photography Studio
• Final submission of exhibition design and documentation PDF to include: historical exhibition fact-sheet, exhibition design concept, exhibition/model views, drawings and any other supporting materials. After the submission each student will photograph their model in the Photography Studio. High res digital files to be submitted by email.
You will enter a research vessel moving towards a new state of fiction.

Existing novels, poems, films and video games will be approached as a series of faceted volumes to be examined with a sense of care, slowness and wonder.

A metaphor, a dissolve, a gameplay, the shift in the use of a pronoun, phosphorescence, a slow tracking shot or an ekphrasis might all become landscapes of exploration.

Plugged onto the continuous presence of a 3d portable printer, these augmented readings will lead to the production of ambiguous objects existing in the common conceptual geometry of a model, a diagram, a script and a score.

**Session 1:** Wednesday 14th Jan  
- Introducing two theoretical devices: outplug and innergraffiti

**Session 2:** Wednesday 21st Jan  
- Study and Diagrams based on The Black Dossier by Alan Moore and Phosphor Reading by Its Own Light by Wallace Stevens

**Session 3:** Wednesday 28th Jan  
- Study and Diagrams based on Crash by J.G Ballard and The Fountain by Darren Aronovsky

**Session 4:** Wednesday 4th Feb  
- Production part 1

**Session 5:** Wednesday 18th Feb  
- Production part 2

**Session 6:** Wednesday 25th Feb  
- Production part 3

**Session 7:** Wednesday 4th March  
- Production part 4

**Session 8:** Wednesday 11th March  
- Presentation
This course examines fabrication techniques as potential activators of material systems. Working at the interface between matter, computed geometry and machinic properties, we will develop material catalogues translating visible and invisible properties into variables of effect, behaviour, scale and articulation. Using Rhinoceros, laser cutting, and CNC technologies to create a series of prototypes exploring possible design negotiations between machine and material.

*This course combines a larger group of First year and Intermediate students in order to develop and build large-scale installation works.*

**III - THE MASTERY**

**Session 1: Wednesday 14th Jan**
- Introduction to selected scheme
- Design Optimization:
  - 1. Material
  - 2. Structure
  - 3. Assembly

**Session 2: Wednesday 21st Jan**
- Design Optimization:
  - 1. Material
  - 2. Structure
  - 3. Assembly

**Session 3: Wednesday 28th Jan**
- Automated fabrication drawings and Installation production

**Session 4: Wednesday 4th Feb**
- Automated fabrication drawings and Installation production

**IV - THE SPECTACLE ***

**Sessions 5-8:** Feb 2015
- Installation build

*NB: due to the nature of this course the installation build will run over a compressed intensive period, more details will be available on the aa-media.com website towards the end of Term 1.*

**II – PENDING STRUCTURES**

Valentin Bontjes van Beek  
Weds, 2-5pm

Is there beauty in the tight fit? Where lies the detail? We will design and build structures at a 1:1 scale and deploy them in a (public) location of the AA. The constructions will address sculptural, utilitarian
and structural qualities to challenge the permeability and (in)habitation of a space within a space. The Pending Structure will be of a parasitic nature, opportunistic but not hostile.

We will design in model and only use drawings to instruct cutting devices (laser cutter, CNC milling). Our preferred construction material is 12mm ply wood. The final structure should be considerably light and fabricated on the CNC mill. Each piece is pre-cut, not larger then a man can carry. The jointing technique is biscuit joining and where needed (black) drywall screws. Depending on this year’s CNC demand we will take a trip to Hooke Park to fabricate our pieces.

The Pending Structure should be beautiful and consider issues of independence and integration into a space - a measured ratio of directionality and porosity.

Every other session will start with a short seminar supporting the design and construction process of each group.

**Session 1: Wednesday 14th Jan**
- Introduction to the course – working groups
- The Sheet: scaled modelling exercise
- Presentation of previous years work

**Session 2: Wednesday 21st Jan**
- Modeling techniques
- Site/location!

**Session 3: Wednesday 28th Jan**
- Group tutorials
- Surface, signage, lighting
- Movement and negotiation

**Session 4: Wednesday 4th Feb**
- Individual tutorials
- Structure, economy, redundancies
- 3D model – physical and virtual

**Session 5: Wednesday 18th Feb**
- Fabrication
- Material size, cutting tools, schedule

**Session 6: Wednesday 25th Feb**
- Group tutorials
- Fabrication
- Documentation of design process

**Session 7: Wednesday 4th March**
- Group tutorials
- Fabrication
- Mock-up printed submission

**Session 8: Wednesday 11th March**
- Final presentation
- Course Submission
This course examines architecture as a dynamic form of interaction and communication. Through basic programming, physical computing and prototyping we will gradually develop projects with simple behavioural rules displaying life like features. Data mining and information processing will be converted to movement, light and sound.

In term II, we will use the functionality of the Arduino platform in order to achieve certain behavioural activities. Various sensors and actuators will be the means of interaction, receiving data and perform actions through constant feedback loops of analogue and digital values. Each student will develop independently a small prototype of preferable scale and site focusing on aspects of interaction with everyday life.

Digital software such as Rhinoceros or Maya will be used in order to design functional prototypes manufactured using laser cutting, CNC and 3d printing techniques. Knowledge of 2D/3D Rhino would be recommended but not necessary.

Session 1: Wednesday 14th Jan
- Introduction to interactive design
- Introduction to analogue and digital tools

Session 2: Wednesday 21st Jan
- Basic programming logic
- Arduino I – Functions and Conditions

Session 3: Wednesday 28th Jan
- Arduino II – Sensor and Actuator connectivity
- Introduction to electrical components

Session 4: Wednesday 4th Feb
- Arduino III – Communication with digital platforms
- Prototyping – First Ideas

Session 5: Wednesday 18th Feb
- Digital Fabrication.
- Prototyping – First Iterations

Session 6: Wednesday 25th Feb
- Digital Fabrication.

Session 7: Wednesday 4th March
- Finalization of behavioural system.
- Digital Fabrication.

Session 8: Wednesday 11th March
- Finalization of Prototype
“If I had to reduce the world to one tool, it would be soft pencil”

Ron Arad, AA graduate and world-renowned architect and furniture designer

"So much more than I expected from a 'drawing class', a new perspective in visualization was unraveled." Recent student

The perfect AA escape: for each of our sessions we will leave our usual AA haunts to draw on the unsurpassable cultural and visual richness available at world-class collections near by.

Focused on sensibility over technique, here you will find your drawn voice, as we explore what it means to author drawing that delivers your vision. We will intensively exercise the immediacy of hand drawing to synthesize, dissect, reinvent and repackage the fabulous worlds on display for us.

Hand drawing is the single most important tool a designer can have, and this is the perfect opportunity to gain full confidence in your. Each of the session venues has a distinct content and materiality, and has been carefully chosen to strengthen a deep connection between vision, drawing and expression. Our one session in the AA Archives is a privileged opportunity to unpack the drawing strategies of a few of the AA’s great visionaries.

Individual coaching and group discussions will provoke the development of an effective range of drawing strategies throughout the course. During the second half of the term each student will independently develop a drawn architectural vision, one that is a natural manifestation of their emerging architectural concerns. The nature of the independent submission will be developed in discussions with the tutor, and it is to be submitted at the end of term along with digital copies of their session drawings.

**Session 1:** Wednesday, 14 January: meet at British Museum, Horological Study Rooms, meet in the southwest corner of the Great Court near information desk.

- Introduction to the semester, and the British Museum
- Objects with interiors
- Letting tectonic inform drawing

**Session 2:** Wednesday, 21 January: meet at UCL’s Grant Museum

- A language of form
- Differentiating materials

**Session 3:** Wednesday, 28 January: meet at AA Archive, 33 Bedford Square, rear basement.
• Drawing session delving into some extraordinary portfolios of AA graduates.
• The notion of authoring drawing

Session 4:  Wednesday, 4 February: meet at the RIBA 1st Floor Exhibition space.
• Drawing session in and round the RIBA Headquarters, and the current exhibition
• Using drawing to articulate form, and to reveal construction

Session 5:  Wednesday, 18 February: meet at Hunterian Museum, Lincoln’s Inn Fields.
• Drawing session in Hunterian’s fabulous collection of anatomical specimens and medical instruments.
• Using drawing like a scalpel to capture both objects and architecture

Session 6:  Wednesday, 25 February: meet at Victoria & Albert Museum, Prints & Drawings Collection
• Studying the vision of others
• Studying examples of drawing as well as photography

Session 7:  Wednesday, 4 March: meet at British Museum, Islamic World (Gallery 34)
• Surprising shapes
• Geometry and surface

Session 8:  Wednesday, 11 March: Meeting at Bedford Sq. (in room assigned for course)
• Pin-up Review of the term’s work, including independent study work.
• Hand-in of:
  – simple booklet summarizing work for term
  – CD containing JPGs of work for the term, and booklet file.

PAINTING ARCHITECTURE II
Alex Kaiser
Weds, 10am-1pm

“All ideas are secondhand, consciously and unconsciously drawn from a million outside sources. We are constantly littering our literature with disconnected sentences borrowed from books at some unremembered time and now imagined to be our own.” — Mark Twain

Throughout this course we will be creating both small and large-scale drawings using projections such as axonometric, orthographic & isometric. We will use drawing not as an final outcome - but as an iterative process to explore certain investigations, tectonics, and stories. Through adopting the modus operandi of the musician sampling sounds found in the street, or of the video artist splicing together a piece of film from existing snippets of video, we will create and splice together samples extracted from design,
architecture, toys, inventions, mechanics and so on. Employing the act of ‘digging’, we will first sample these existing spaces, elements and functions and re-construct them in order to understand the precise nature of them. A series of taxonomies will be created from the constructs, which will then be re-mixed together into new architectures and landscapes. We will focus on techniques and methods such as; digital painting, collaging and line/hand drawing. Throughout the course large scale drawings and paintings will begin to manifest themselves slowly through an iterative process of digital-analogue alchemy.

Session 1: Wednesday 14th Jan
- Hand drawing techniques + working with line drawings
- Developing analogue + digital workflow

Session 2: Wednesday 21st Jan
- Creation of a drawing taxonomy
- Photoshop collage + brush techniques
- Introduction to light, shadow, tone + composition in drawing

Session 3: Wednesday 28th Jan
- Developing the orthographic projection (Plan/Section/Elevation)
- Utilizing the drawing to explore potential concepts + scales

Session 4: Wednesday 4th Feb
- Finalising the orthographic drawing
- Axonometric drawing techniques

Session 5: Wednesday 18th Feb
- Generation of the axonometric catalogue
- Working between hand drawing and 2D/3D images
- Exploring colour + composition

Session 6: Wednesday 25th Feb
- Layering projections
- Developing large scale drawing

Session 7: Wednesday 4th March
- Developing consistency within the drawn language
- Developing large scale drawing

Session 8: Wednesday 11th March
- Finalising large scale drawing
“The blurred swish during the movement of the eye is somehow snipped from our conscious awareness, and we are left with just the significant images before and after the movement. Not only do we not see the blurred movement, we are unaware that anything has been removed. And this is happening all the time: with every movement of our eyes, an invisible editor is at work, cutting out the bad bits before we can ever see them”.

Walter Murch

The Conversations

Walter Murch and the Art of Editing Film.

Michael Ondaatje.

“There’s no such thing as simple. Simple is hard.”

Martin Scorsese

The course this year will investigate private, new spaces that have been shaped by the audio components that you will create in the initial stages of the project. The piece that may be without narrative in structure will be no shorter than 3 minutes in length and will incorporate live action footage. Audio material should be recorded and manipulated separately. The mixing of soundtrack and any incidental sound from footage can be mixed at editing. The work should be titled and authored to DVD accompanied by a booklet containing a facsimile of the storyboard and explanation of the work’s intentions.

http://www.aaschool.net/resources/av/timelinemapage.html

Session 1: Wednesday 14th Jan
• Screenings
• Recording, sequencing
• Soundtrack Pro, GarageBand

Session 2: Wednesday 21st Jan
• Screenings with emphasis on shot type
• Cameras, tripods,

Session 3: Wednesday 28th Jan
• Screenings with emphasis on editing
• Final Cut Pro, Adobe Premiere

Session 4: Wednesday 4th Feb
• Making /Editing
Session 5: Wednesday 18th Feb
  • Making /Editing

Session 6: Wednesday 25th Feb
  • Making /Editing

Session 7: Wednesday 4th March
  • DVD Authoring (DVD Studio Pro. Toast etc)

Session 8: Wednesday 11th March
  • Finishing, authoring, discussion.

Final Cut Pro and Adobe Premiere are the primary editing tools, but we will look at After Effects, Motion, Garageband, Logic in addition.

Source material can be found at:

http://aavideo.tumblr.com/

Student work can be found on the AA YouTube channel at

http://www.youtube.com/playlist?list=PLI1nDzeohfnmQ0dsisy9BxisAOhcm8qJv

In 1791, the meter was arbitrarily defined as “being equal to the ten-millionth part of one quarter of the meridian”, admittedly a unit a lot more difficult to comprehend than ‘the length of my foot’. The unit of measure most commonly used seems to belong to astronomy and pure geometry rather than to derive from human experience. Between 1791 and 1799 however, two men, Pierre-François Méchain and Jean-Baptiste Delambre, walked the meridian from Dunkirk to Barcelona, an arc of 9 and a half degrees, in order to calculate its length by triangulation. So it all started with a walk from Dunkirk to Barcelona.

In this course we will start by taking measure of the paper space available to the architect. We will consider its materiality as well as its dimensions.

We will then take measure of the body and translate those measurements into metric patterns and instruction drawings for garments using Euclidean geometry. We will learn to assemble paper as well as woven material and observe their respective behaviours.

Session 1: Wednesday 14th Jan
  • Introduction to the space of the page
  • ISO and layouts
• Working with a grid, folding

Session 2: Wednesday 21st Jan
• Introduction to body measurements and standards
• Taking measure of the body
• Drawing a 1:1 pattern from individual measurements using geometrical instructions

Session 3: Wednesday 28th Jan
• Introduction to working with woven fabric
• Understanding pattern lines
• Cutting and assembling the simple 3D garment

Session 4: Wednesday 4th Feb
• Introduction to adapting patterns
• Working with paper in 3D
• Making a series of paper transformations of the initial pattern

Session 5: Wednesday 18th Feb
• Introduction to the instruction drawing and annotations
• Turning the paper garment into a pattern
• Drawing and writing annotations

Session 6: Wednesday 25th Feb
• Making /Editing

Session 7: Wednesday 4th March
• Introduction to specific tailoring details
• Making the garment using the pattern
• Updating the pattern

Session 8: Wednesday 11th March
• Documenting, collating and presenting the work

EXHIBITION PRACTICES
Capucine Perrot
Weds, 10am-1pm

Exhibition Practices draws upon emblematic modern and contemporary art exhibitions to look at the interrelationships and mutual influences of curating, architecture and exhibition design. We will investigate selected exhibitions and their various components: the museum space, the curatorial statements, layout, display devices, floor-plans, archival material, catalogues and reviews to examine the ways in which exhibition design continues to play a crucial role in the presentation and understanding of modern and contemporary art.

Each student will research one exhibition case study with a view towards synthesising the key components of the exhibition – the artworks, the curatorial concept, and the institution – in order to conceive of a new exhibition design that will be articulated over eight sessions through various media (drawings, sketches and audio/video) to culminate in a model that re-presents the exhibition.
Through a selection of key art historical moments, which have often coincided with innovative architectural displays, this course will also serve as a crash-course in Modern and Contemporary art. Exhibition Practices will include site-visits to exhibitions in London and meetings with curators.

Session 1: Wednesday 14th Jan
- Class introduction and overview
- Lecture: Presentation of exhibition case studies; each student to select a case-study.

Session 2: Wednesday 21st Jan
- Case-study Presentations on Context: Institution, Curator & Exhibition Design
- Each student will be asked to make a 10-minute presentation following the outline explained in class.

Session 3: Wednesday 28th Jan
- Case-study Presentations on Content: List of works, the artist’s perspective
- Each student will be asked to make a 10-minute presentation following the outline explained in class.

Session 4: Wednesday 4th Feb
- New exhibition concepts
- Each student will be asked to present a written concept of the re-imagined exhibition design alongside three different proposals of alternative exhibition design, taking into account preliminary research of the original exhibition.

Session 5: Wednesday 18th Feb
- Individual meetings
- Individual meetings to review the development of ideas and plans for models. Each student will be asked to present and discuss up to three plans and sketches for models referring back to the written exhibition concept.

Session 6: Wednesday 25th Feb
- Field trip
- Off-site exhibition visit and meeting with curator.

Session 7: Wednesday 4th March
- Preliminary model
- Each student will be asked to make a final 10-minute presentation of the exhibition concept and the preliminary model. Feedback will be given during this class, which should be incorporated into the final submission.

Session 8: Wednesday 11th March
- Final submission and photography of final model in Photography Studio
- Final submission of exhibition design and documentation PDF to include: historical exhibition fact-sheet, exhibition design concept, exhibition/model views, drawings and any other supporting materials. After the submission each student will photograph their model in the Photography Studio. High res digital files to be submitted by email.
Students from across the school are encouraged to enrol in Media Studies Lab courses to further their knowledge in a range of prominent digital applications. All courses will be open to students from all years of study. The format for MS-Lab courses is structured around intense introductory one-day workshops of approximately 5-6 hours. In contrast to studio based MS-Core courses, MS-Lab courses are not marked, and are not a formal requirement for any students. They have been established as an accessible means for students to quickly gain technical knowledge in common applications that may not be offered elsewhere in their education, or as a means of reinforcing existing technical knowledge.

All MS courses take place either on a Monday or a Saturday. Outlines of the courses offered are detailed on the following pages. Full details of times and locations of these courses are available on the Media Studies website: www.aa-media.com

REGISTRATION FOR MS-LAB COURSES

Students wishing to participate may simply show up to the course at the outlined time and room. Enrollment capacity will be established on a first-come basis

<table>
<thead>
<tr>
<th>Courses [MS-LAB]</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTUMN/WINTER TERM:</td>
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</tbody>
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* Check website for course dates and times

www.aa-media.com

AutoCAD

This workshop course serves as a general introduction to the basics of drafting and modelling in Autodesk AutoCAD. Students will learn the fundamentals of producing CAD drawings, along with basic import/export standards.

Adobe Photoshop + Suite

This course will introduce students to general image processing in Photoshop, along with workflow integration with the Adobe Suite. Brief coverage of Adobe Illustrator will be provided. Students need not have previous Photoshop experience to follow with course exercises.

Microstation

This workshop course serves as a general introduction to the basics of drafting and modelling in Bentley Microstation. Students will learn the fundamentals of producing CAD drawings, along with basic import/export standards.

Introduction to Rhinoceros 3D

Introducing students to NURBS-based modelling in Rhinoceros 3D (Rhino), this course will instruct students on how to interact with 3D digital space for architectural projects using this very popular application.
**Rhinoceros 3D w/ Grasshopper**

This workshop course teaches students new to Rhino the basics of establishing 3D geometry, adaptive to parametric modelling with the plugin Grasshopper. Students will be taught common Grasshopper solutions that most efficiently make use of its parametric nature in relation to Rhino's NURBS-modelling foundation.

**3D Studio Max 1, 2**

This workshop course will introduce students to modelling and animation in Autodesk 3D Studio Max. Inherent in the course instruction, will be in understanding how to interact with 3D digital space for architectural projects.

**Maya 1, 2**

This workshop course will introduce students to modelling and animation in Autodesk Maya. Inherent in the course instruction, will be in understanding how to interact with 3D digital space for architectural projects.

**Revit**

This course will take students through the fundamental concepts and techniques involved in using Building-Information-Modeling (BIM) using Autodesk Revit, a topic that is becoming more critical the practice of architecture today.

*Students should regularly check the Media Studies website to confirm course offerings and their day/time.*

[www.aa-media.com](http://www.aa-media.com)
As announced in the Prospectus the aim of this course is to make students more useful to their employers so that in turn the students will be entrusted with more meaningful and more interesting tasks to do during their year out. The result over quite a number of years now is that the post Part I Year Out has been enjoyable and useful.

This course is made of seven sessions: five lectures plus a mock meeting and the final session, which is reserved for students’ presentations. The course takes place in the first term and it aims to give third year students an overview of the tasks architects tackle in the practice of their profession.

Why is the course structured in this way?

In the past few years I have noticed that third year students are articulate enough to present their work in the context of their academic work but when they are taken out of that environment and put in a commercial professional environment they lack the basic training. The same thing tends to happen with other basic skills, such as note taking, etc. The reason for this is that very few of them have had any experience out there in the professional environment. Therefore we need a first session as an introduction and an overview and purpose of the course. The breadth of topics covered by this course is quite wide so we will dedicate four sessions to cover them all. Towards the end of the course, students have many questions to ask, particularly in relation to the topic of their assignment. The sixth session is therefore aimed at providing the students the opportunity to have their questions answered. I will answer these questions in public as if were a professional meeting. Students will participate by, chairing the meeting, asking and answering the questions, taking minutes, etc. Therefore this session, which is conducted as a progress meeting to illustrate that conveying information in the professional environment (be it in a site hut or Client’s boardroom) is different to that of the AA Jury, affords the students the opportunity to prepare their assignments and presentation. The final lecture consists of four 15-minute presentation by groups of students on a topic selected from those covered in the previous sessions.

Those students not participating in the presentations will need to submit a short written essay.

**LECTURE 1: Wednesday 8th October**

**Introduction**

The first lecture, entitled “Roadmap to Architectural Registration”, describes the steps required for registration as an architect.

1. How to convert your creativity into a career.
2. How to negotiate your way through the jungle of ARB and RIBA requirements.
3. How to fast track registration as an architect.
4. Signposts the business and contractual issues that will be dealt with later on in the series
5. Explains and de-mystifies the work experience you will need to pass the Part 3 examination and register as an architect.

Overview of the relative status of the architect in various countries
LECTURE 2: Wednesday 15th October

In this lecture you will be encouraged to look critically at the issues below and take a position. The good observer is very quick on the uptake but observation is not enough. You need to have taken a position.

The Architect’s Office as a business

1. How offices are organised:
   1.1. Partnerships
   1.2. Limited Liability Companies
   1.3. European Examples
   1.4. U.S.A. models
2. Dealing with other models,
   2.1. Project management
   2.2. Concept Architect and Project Architect
   2.3. Enshrined in a Contract
3. Work Ethic
   3.2. Hard Times
   3.3. Acceptable Practices
   3.4. How learning is reflected in Seniority and Pay
4. Getting New Work, Managing the Office and Designing.
   4.1. Division of Labour
   4.2. Roles and hierarchies
   4.3. People for Work or Work for People
   4.4. Competent professionals
   4.5. Transparency
5. How you fit in the office
   5.1. Your qualifications
   5.2. Your knowledge
   5.3. Your manners
   5.4.

LECTURE 3: Wednesday 22nd October

For the first time the changes the profession is undergoing have been provoked from within the profession. We look at the roles of the architect and the skills needed for each of the roles. We also look at how these roles have been changing with the changes in design as well as in the industry.

The role of the Architect

1. Traditionally the architect has been in the middle of a number of professions coordinating their contributions towards a complete design.
   1.1. The other professions are specialists in their field and complete the architect’s conceptual design in detail.
   1.2. The architect has to understand the other disciplines and speak their language.
   1.3. Each takes responsibility for their work. But the Architect directs the project.
2. Appointment defines relationship:
   2.1. Appointed by the Client or working for the Architect. Different approaches suited for different situations.
   2.2. Client’s appointment: Architect as Lead Consultant - traditional roles, consultants
   2.3. Part of the Architect’s team: Multi-disciplinary practice - Total Package (Insurance) Inclusive fees.
3. Project Management and “The Project Manager”
3.1. Management or coordination
3.2. Optimising resources or design
3.3. Evolution of professions

4. Work Stages: (Plan of Work)
4.1. Fee bid
4.2. Brief Taking
4.3. Sketch proposals, Planning Application
4.4. Cost Plan and Programme
4.5. Detail design. Specification. Tender Documentation. (Bills of Quantities)
4.6. Tender Action
4.7. Advice on Tenders
4.8. Contract Letting. Under seal. 6 or 12 Years
4.9. Administration of the Contract
4.10. Site Inspection

LECTURE 4: Wednesday 29th October

In order not to allow the law to thwart their creativity the architects need to know the law well. Understanding the basic principles is not all but it helps...


1. Contract: “the acceptance of an offer made”
   1.1. Terms of a contract. Implied terms.
   1.2. Clauses.
2. Contract Law
3. Building Contract
4. Type of Contracts
   4.1. Traditional JCT
      4.1.1. With Bill of Quantities Private Edition
      4.1.2. Without Bills
      4.1.3. With approximate Bills
      4.1.4. Without Bills
      4.1.5. With Design Contractor’s design input … and more...
   4.2. 4.2. Design and Build
      4.2.1. Fixed Price
      4.2.2. Single Point Responsibility
      4.2.3. Novation
   4.3. Other types (i.e. Bovis)
5. Administration of the Contract
   5.1. Pre-contract Meeting: Who is who, Programme, Have it all said out loud.
   5.2. Supplying information in time. Information routes.
   5.3. Site inspection:
      5.3.1. Behaviour on site
      5.3.2. Respect everyone
      5.3.3. Check list. Client’s pair of eyes
   5.4. Back-up to inspections on site
      5.4.1. Architect’s Instruction
      5.4.2. Variation Order (Extras)
      5.4.3. P.C.Sums
5.4.4. Interim Valuation
5.4.5. Interim Certificate
5.4.6. Penultimate Certificate
5.4.7. Practical Completion
5.4.9. Release of Retention of Moneys
5.4.11. As Built Documentation. Fire Certificates, etc.

6. Dispute
   6.1. Settlement of a dispute
       6.1.1. Arbitration
       6.1.2. Adjudication
       6.1.3. In court
       6.1.4. Out of Court – Amicable settlement

LECTURE 5: Wednesday 12th November

The second lecture on the Law focuses more on the rules of the game: what is mandatory and what is not. Case studies will help you see that there is a time to put up a fight and a time to give in.


   1.1. Conveyancing,
   1.2. English Law and Law in Scotland
   1.3. Trespass and boundaries.
   1.4. Easements. (Acquisition and Extinguishment)
        Profits; Natural rights; Public rights; Restrictive covenants
   1.5. Landlord and Tenant. License to Alter. Full repairing Lease.
   1.6. Party Walls and the London Act
        Party Wall Award; Party Wall surveyors; Decision; Implementation; Rights.
   1.7. Planning Applications
        1.7.1. Development Plan
        1.7.2. Planning Classes. Uses and Change of Use
        1.7.3. Planning Application. Outline and Detail Planning Permission
        1.7.4. Delegated Matters. Planning Committee. Non-determination
   1.8. Conservation Areas.
        1.8.2. Presumption to retain buildings. (PPG 14, 15 & 16)
   1.9. Listed Buildings
        1.9.1. Categories
        1.9.2. Financial Help. Grants
   1.10. Archaeology
        1.10.1. Duties of the Architect
        1.10.2. Expert advice
        1.10.3. Mitigation Plan
   1.11. Planning Appeals.
        1.11.1. How it is conducted
        1.11.2. Briefing, Planning Lawyers and Barristers. Proof of evidence.
        1.11.3. Adjudicator. Adjudicator’s report.
1.11.4. Planning Question

2. Statutory Authorities and Building Regulations
   2.1. Connections to services and Statutory Undertakers
   2.2. Private streets, adopted highways.

3. Building Regulations, Applications. Who is responsible for what
   3.1. Building Inspector. (District Surveyors and Building Control Surveyors.) Building Notice.
   3.2. Fire and Safety. Policing Authority
   3.3. CDM. Planning Supervisor.

LECTURE 6: Wednesday 19th November

Paperwork
Value of written records

Records and paperwork in the office

How to conduct a meeting

Preparation of essays and presentations
Object of the exercise

Topics

Questions and Answers

LECTURE 7: Wednesday 26th November

The last session will be devoted to four presentations by groups of students.

Student Presentations
Those students who prefer to prepare and make a detailed presentation on one of the topics covered by the lecture course or on a topic agreed with Javier Castañón can do so if they wish. The presentation will count as their assignment and therefore they will not need to submit an essay. These study groups can be a minimum of three students and a maximum of five. They should speak to Javier Castañón to agree the formation of the group and the topic of their study in the first or second sessions of the course. There will be a maximum of four groups and the presentations will be strictly limited to 15 minutes so that all four presentations can be done within the 7th and last session. There is also a fifth group of students who are asked to give a critical assessment of these presentations.

Course Assignments
As part of the course, third year students are asked to prepare an essay on one of the subjects covered in the lectures. The assessment criteria for this essay is summarised as follows:

a) It should demonstrate a clear and up to date knowledge of the subject chosen: therefore it should be accurate, that is to say, free from factual errors.

b) It should show the author’s capacity to convey concepts, facts, points of law, etc. clearly and succinctly: therefore it should be clear, concise and succinct.

c) It should show the ability to handle the information presented in the lectures in a constructive way: therefore it is not just a matter of downloading a text but presenting information in a written form that can be easily absorbed.

Short essays are preferred. In any event essays should not be longer than 1500 words. This essay must be handed to Belinda Flaherty by 4:00pm on Friday 7th December 2012.
Those students who have made presentations on the last day of the course do not need to submit an essay

**Advised Reading List:**

“ARCHITECT’S LEGAL HANDBOOK” The Law for Architects”

By Anthony Speaigh & Gregory Stone

Seventh Edition

Architectural Press

ISBN 0 7506 4375 7

“THE ARCHITECT’S GUIDE TO RUNNING A JOB”

By Ronald Green

Sixth Edition

Architectural Press

ISBN 0 7506 5343 4

“ARCHITECT’S JOB BOOK”

Editor: Sarah Lupton

Seventh Edition

ISBN 1 85946 080 1

“THE ARCHITECT IN PRACTICE”

CJ Willis and D Chappell

Tenth Edition

BSP Ltd Oxford 2005

Architecture both defines and is defined by social, cultural, political and financial constraints: this is where the discipline and the profession of architecture meet. This mutual influence occurs wherever interventions in the built environment are considered and can be strengthened or undermined by the many ways in which the practice of architecture can be undertaken. The more informed we are about the factors that control what can be made, the concerns that those who ask us to make designs have and the ways in which we can choose to work, the greater the opportunities to propose and make appropriate architectures.

This course develops, deepens and questions the professional practice themes introduced in Intermediate School and encountered in Year Out work experience and integrates these comprehensively and critically with design and design considerations. It is also intended to provide an informed basis for the next stage of professional experience.

The course is provided through a series of 7 lectures, seminars and discussions that consider key issues relating to the professional, political, legislative and financial contexts of design and construction, together with examples of and strategies for conventional and unconventional models of practice in preparation for the next stages of work experience and professional qualification. Part of each of the first 5 sessions will cover the topics with which students must be familiar, and the remaining part of each session will review and question how these topics can or could be applied in practice to achieve or respond to varying objectives. One of the sessions will consider the basis and options for the next stages of professional experience.

**Timetable:**

- **8 October 2014 5.00pm** Lecture 1
  - Introduction to course, Legal, professional, statutory and ethical responsibilities of an architect, introduction to assignment

- **15 October 2014, 5.00pm** Lecture 2
  - Statutory requirements including planning, building control, and health and safety, and the interaction of these with design

- **By 17 October 2014**
  - Select preferred tutor
  - Register selection with Rob Sparrow. Tutors' CVs available in Library or on Server. Maximum of 12 students per tutor, allocated on 1st come 1st served basis

- **By 17 October 2014:**
  - Submit one drawing in pdf format showing proposed selected project.
  - Submit by email to Kathy Gal Kathy.Gal@aaschool.ac.uk and to Rob Sparrow: sparrow_ro@aaschool.ac.uk. Issued to selected tutor

- **22 October 2014, 5.00pm** Lecture 3
  - Preparation of briefs to meet the objectives of clients and users; strategies and methods for implementation and construction

- **29 October 2014, 5.00pm** Lecture 4
Financial factors of and controls for choices of different building typologies, technical and construction systems and materials, and the interaction of these with design

Between 27 and 31 October 2014: Tutorial 1

Bring drawings of your selected project with you and be prepared to review project, explore constraints, develop structure for submission.

Date, time and venue allocated by Rob Sparrow

3 November 2014

Open week

12 November 2014

Lecture 5

Forms of and strategies for architectural practice; principles of running practices and projects, consideration of emerging influences

19 November 2014

Lecture 6

Forum and discussion: review of modes of architectural practice by exemplar practitioners, and effects of these on their work and opportunities

26 November 2014

Lecture 7

Next stages of professional experience, forward thinking, planning and preparation

Between 24 and 28 November 2014: Tutorial 2

To review draft of submission drawings, obtain guidance

Date, time and venue allocated by Rob Sparrow

By 12 December 2014: Submission of completed assignment

5 A3-sized annotated drawings, content as described in Assignment and Assessment below

Assignment and Assessment

- Students are asked to select a project from one of the following four options:
- one on which they have worked in a recent period of professional practical experience (for example in the last 'Year Out'), or
- one by their Unit Master's practice, or
- one of their own projects from a previous academic study year, for example, Fourth Year. or
- another project by agreement
- The project must be based in the UK in the current time; if necessary, the project must be translated to the UK to a site of the student's own choosing. Also, for the student's own project, the original scale, subject and location of the project are not relevant, but the project must have the capability of physical substance and presence. By agreement, a smaller part of a large project may be selected.
The assignment is to undertake a "How?/What if?" review, which will consider, through a series of four annotated drawings based on the project, how integration of professional, statutory, financial and implementation considerations has, for built projects, affected and enabled the design or, for unbuilt projects, how if these factors had been considered the design could have been developed differently so that the project could have been implemented.

A fifth annotated drawing of the project will consider architectural practice:

for projects by a practice for whom the student has worked and for projects by Unit Masters, the requirement is to reflect on and evaluate the practice, and consider how the practice undertook the project, and why and how the practice obtained the commission. Note: the requirement is not to critique or evaluate the design of the project itself.

for a project by the student, the requirement is to consider how and what kind of practice would be capable of taking the commission and project through to completion. Note: the requirement is not to consider the design of the project itself.

for all projects, a final requirement is to offer an alternative form of architectural practice that might have been suitable to carry out the project.

Students must forward one drawing in pdf format showing their proposed selected project to Course Tutor and course administrator by email by 17 October 2014. Students will at the same time identify where in the UK they have chosen as the theoretical location for their project.

At the start of Term 1, students will be asked to select a tutor from a panel, and to work with that tutor over two compulsory tutorials to develop their assignments. The tutorials will take place during Week 5 (27-31 October 2014) and Week 9 of Term 1 (24–28 November 2014).

Final submission at the end of Term 1 comprising 5 A3-sized annotated drawings of selected Fourth Year project considering planning, building regulations, financial factors, the brief and implementation including architectural practice had the project been based in the UK in the present time, and outlining how the design could have developed differently to address these constraints.

Assessment will be based on the following:

- Presentation of 5 A3-sized annotated drawings of one project focusing on the specific aspects as described in the submission requirements
- Evidence of appropriate knowledge and skills to recognise, understand and critically reflect on the professional issues which affect architectural design, and how these designs would be prepared to conform to appropriate professional and regulatory frameworks

Marking/results framework adheres to a High Pass with Distinction, High Pass, Pass, Low Pass, Complete to Pass system.

This course is compulsory and must be passed as part of the overall requirements for passing in Diploma School. The assignment drawings must be available for inclusion in the final academic portfolio of each student’s work.

Students who do not comply with the requirements for project selection, or who do not attend the first of the two compulsory tutorials will invited for review with the Course Tutor and with their Unit Master. Students who do not attend the second of the two compulsory tutorials or who do not comply with the requirements for the assignment submission will be raised with the offices of the AA Director and Registrar and may be invited for review.

Selected bibliography:

**TOPIC AREAS**

PROFESSIONALISM, ETHICS AND CODES OF CONDUCT
- RIBA, Code of Professional Conduct, RIBA Publishing, 2005

APPOINTMENT

LAW

PLANNING AND BUILDING REGULATIONS
- The Building Regulations, Communities and Local Government, 2006, as amended
- Approved Documents, Communities and Local Government, 2006, as amended
- Tricker, R and Alford, S, Building Regulations in Brief, Routledge, 2012

HEALTH AND SAFETY, ACCESSIBILITY
- Griffiths, O, Understanding the CDM Regulations, Taylor and Francis, 2007

COSTS AND FINANCE

PRACTICE MANAGEMENT AND TEAM ORGANISATION

PROJECT MANAGEMENT

CONTRACT AND CONTRACT ADMINISTRATION

DISPUTE RESOLUTION
Online:

RIBA: [www.architecture.com](http://www.architecture.com)

ARB: [www.arb.org.uk](http://www.arb.org.uk)

Planning Portal: [www.planningportal.gov.uk](http://www.planningportal.gov.uk)

Building Regulations and Approved Documents: [www.planningportal.gov.uk](http://www.planningportal.gov.uk)

Department for Communities and Local Government: [www.communities.gov.uk](http://www.communities.gov.uk)

Construction Industry Council: [www.cic.org.uk](http://www.cic.org.uk)

Building Futures: [www.buildingfutures.org.uk](http://www.buildingfutures.org.uk)

Constructing excellence: [www.constructingexcellence.org.uk](http://www.constructingexcellence.org.uk)

Sustainable Development Commission: [www.sd-commission.org.uk](http://www.sd-commission.org.uk)

Barbour Index online – available through AA Library.