

University of Waterloo

ARCH 5077 Fall 2018

William Woodworth

Rawe:nokwas "he dips the words"

TWELVE ARCHITECTURES

OPENING

Two Row Wampum
Tobacco offering
Thanksgiving and condolence
Distribution of tobacco ties

FIELD TRIPS

Crawford Lake longhouses

Longhouse emplacement at the RARE Charitable Trust - Springbank site [North House]

Archaeology Kitchener site with Dr. Rob MacDonald

Mohawk Institute Residential School, Mohawk Chapel, Woodland Cultural Centre

Text -Native American Architecture, Nobakov and Easton, Oxford University Press

Frank Lloyd Wright- a guide and mentor

University of Waterloo
School of Architecture
Fall 2018

ARCH 5077

Twelve Architectures/Aboriginal Culture & Architecture in the Grand River Watershed

Dr. William Woodworth *Raweno:kwas*, B.Arch., Ph.D.
Mohawk, Six Nations of the Grand River

Contact information and hours of availability:
91 Celestial Crescent Hannon, Ontario 647-205-7753.
Available Tuesday 9-10am and 2-5pm

COURSE ASSIGNMENTS & EVALUATION

In the native spirit final evaluation of each student will be made on a *pass-fail* basis.

The students will be evaluated on their understanding of the indigenous mind as demonstrated in a series of exercises designed to engage you on a journey of cultural recovery, respect and reflective expression:

1] A **field trip** to the longhouse reconstructions at Crawford Lake. A written [1000 word] experiential report will be required following the visit. **[20%]**

Crawford Lake Conservation Area is located at Conservation Road (formerly Steeles Avenue) and Guelph Line, 5 km. south of Highway 401 and 15 km. north of the Q.E.W on the Niagara Escarpment in the Region of Halton. It comprises within a 468 hectare park 19km of trails, a rare meromictic lake [Crawford Lake], an extensive forest, and a re-animated 15th century Iroquoian longhouse village which will be the focus of our visit. The cost of the field trip will be kept to the minimum, and include admission to the conservation area [\$6.50], travel, and meals. The date and duration of the trip will be coordinated among the members of the class. This field trip will be held in the week of June 7.

2] As a reflection of their understanding of the course, the students are required to produce a **conceptual MODEL** of a modern longhouse which cleaves to the scale and parti of the original longhouse at its peak of development, but occupied in a utopian community of the future.

The designs will be presented among the class members in late November.

Twelve Architectures

William Woodworth Fall 2018

STANDARDS OF THE UNIVERSITY OF WATERLOO

Academic integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check [the Office of Academic Integrity](#) for more information.]

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70, Student Petitions and Grievances, Section 4](#). When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

Discipline: A student is expected to know what constitutes academic integrity to avoid committing an academic offence, and to take responsibility for his/her actions. [Check [the Office of Academic Integrity](#) for more information.] A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate associate dean. For information on categories of offences and types of penalties, students should refer to [Policy 71, Student Discipline](#). For typical penalties, check [Guidelines for the Assessment of Penalties](#).

Appeals: A decision made or penalty imposed under [Policy 70, Student Petitions and Grievances](#) (other than a petition) or [Policy 71, Student Discipline](#) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72, Student Appeals](#).

Note for students with disabilities: [AccessAbility Services](#), located in Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.

Turnitin.com: Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit alternate assignment.

¹ Course outlines may be distributed electronically.

Step Back In Time – Village Guide

This 15th century Iroquoian Village was reconstructed on its original site to create a unique opportunity to expand our understanding and appreciation of Ontario's First Peoples. Three sources of information were used in reconstructing the village.

1. Archaeological research determined the exact location of various structures such as longhouse posts and fire pits
2. Written records from the Jesuit missionaries & early explorers provided some details on the above ground features such as the longhouses, palisade walls, & other village structures
3. Aspects of the traditional Iroquoian lifestyle have been shared with us through the oral traditions and cultural practices of the First Nations communities & Elders still honouring these traditions today.

To help you explore and enjoy the village, we encourage you to read the Silent Waters Information signs located throughout the village.

Three Sisters' Garden

All Iroquoian people were traditionally farmers who grew three main crops, corn, beans, and squash, known to the people as the Three Sisters. These were planted and cultivated in extensive fields surrounding the village. Tobacco and sunflowers may have been grown within the village.

The Palisade

Archaeological excavations revealed no evidence of a palisade wall at the Crawford Lake site. However, many other excavated villages of this time period were enclosed with a palisade like the one built here to secure the village today. The lookout platforms provided a vantage point from which to 'keep an eye' on the activities in the fields, the village, and the surrounding woodlands.

The Turtle Clan Longhouse

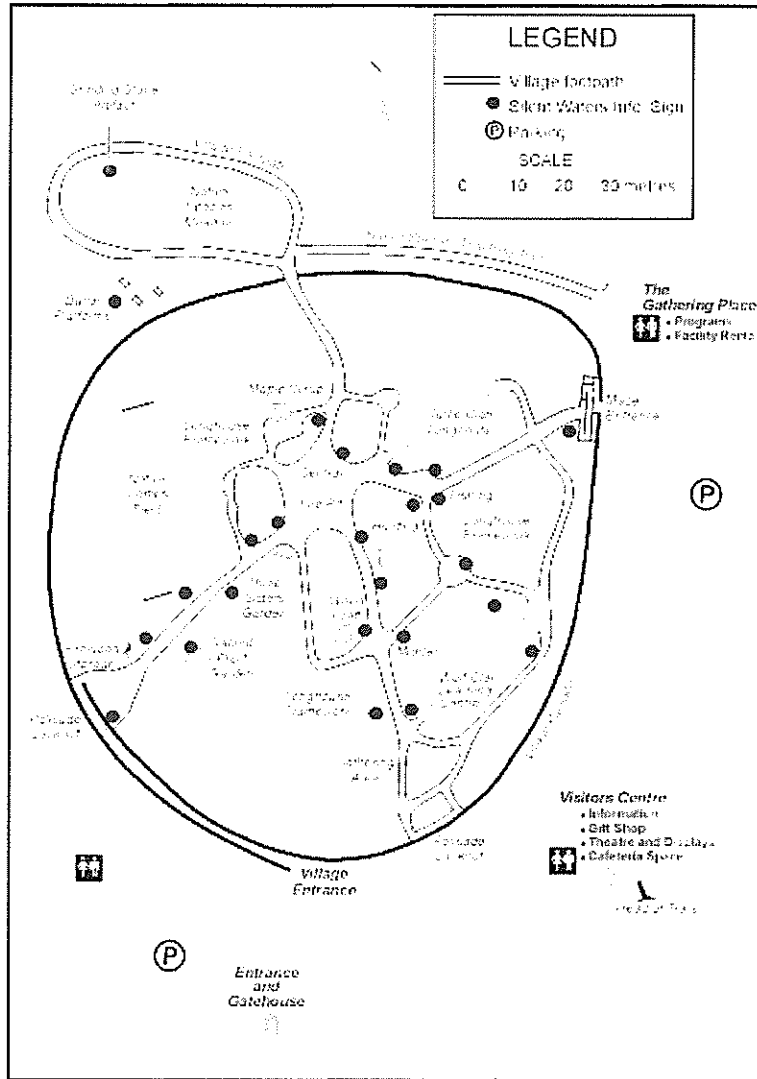
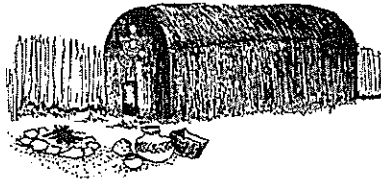
This is the smallest of the longhouses that were uncovered at the site during the archaeological excavations. A longhouse of this size would likely be home to 30-40 family / clan members, (multi-generational and all related on the mother's side of the family). Other longhouses discovered here would have been home to larger family groups/clans up to approximately 100 people. The Turtle clan longhouse is designed to provide visitors with a hands-on experience of what it would be like to live in a longhouse 500 years ago.

The Wolf Clan Longhouse

The Wolf Clan Longhouse is a modern day learning facility that is designed to help visitors learn more about Iroquoian culture, and archaeology through the use of exhibits, displays, and video presentations.

Village Population

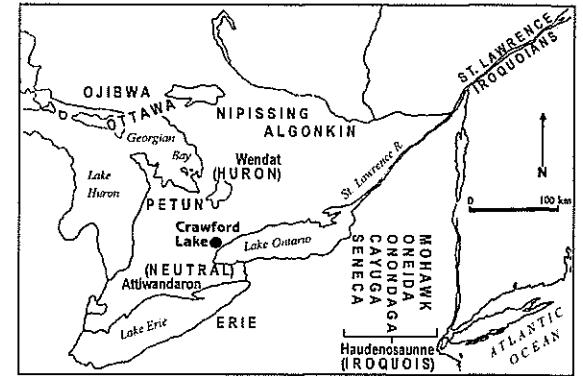
The population of a village is determined by the number and size of the longhouses discovered. This reconstructed village had 5 longhouses and it is estimated that approximately 250 people lived here in the mid-1400's.



The Longhouse People

Although the people who originally lived in this village were Iroquoian, they were not the Iroquois. This can be confusing since Iroquoian is often thought to mean the same as Iroquois. However, the two terms are very distinct. Iroquoian is a general term which refers to several groups of people who share similar languages and cultural practices. Some of these groups or Nations include the Wendat (Huron), Attiwandaron (Neutral), Tionontati (Tobacco/Petun), and the Haudenosaunee (Iroquois). The name Iroquois specifically refers to the Five (now Six) Nations (traditionally in northern New York State) that joined to form the confederacy called the League of the Iroquois (known to themselves as the Haudenosaunee or 'People of the Longhouse').

Crawford Lake is a fascinating place to learn more about the traditional Iroquoian lifestyle because this area is located along the traditional boundary between the Wendat (Huron) and the Attiwandaron (Neutral) people. In fact, archaeological research indicates that the Crawford Lake area was occupied by the ancestors of both of these Nations at various time periods (i.e., the Wendat (Huron) in the 13th, 14th, and 15th centuries and the Attiwandaron (Neutral) in the 15th, 16th, and 17th centuries).



The Iroquoians and their neighbours in the early 1600's

Share in the Discovery all year long!
Visit Crawford Lake every season and experience its unique cultural and natural heritage programs.

Season of the Snowsnake

(January and February)
Longhouse tours, guided snowshoe hikes and snow shoe rentals, cross-country skiing, crafts and discover snowsnakes

Season of the Falling Leaves

(September – November)
Autumn splendour of colours, longhouse lore, fall festivals and lots of fun for everyone!

Sweet Water Season

(March and April)
Native style maple syrup presentations complete with corn bread. Crafts, longhouse lore and a great fun-filled festival

Season of the First Frost

(November and December)
Hiking, longhouse tours, crafts, discovery displays and exhibits

Season of Many Frogs Peeping

(April – June)
Wildflower wonders, crafts, Earth Day Celebration, Kid's Day, hiking and more

OPEN ALL YEAR!
7 days a week
(limited facilities on weekdays from April - Nov.)

Season of the Three Sisters

(July and August)
Longhouse lore, Three Sisters Garden, crafts, native games and lakeside sharing.

Guided programs/tours
(reservations required 905.854.0234 ext. 221)

Visit these other Conservation Halton parks for more great natural experiences

Mountsberg – (905) 854-2276

Raptor Centre, maple syrup demonstration, wildlife, biking and hiking

Hilton Falls – (905) 854-0262

Hiking, biking and cross country skiing, Bruce Trail, waterfalls

Rattlesnake Point – (905) 878-1147

Scenic cliff lookouts, hiking, rock climbing, group camping

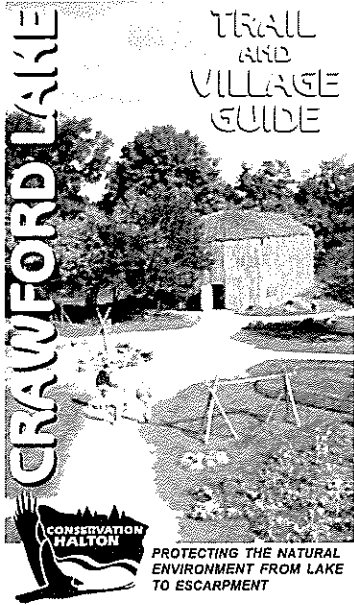
Mount Nemo – (905) 336-1158

Cliff edge trails, scenic lookouts, crevice caves, hiking

Nelso/Glen Eden – (905) 878-5011

Sandy beach, boat rentals, hiking and biking, downhill skiing, snowboarding, group camping





TRAIL AND VILLAGE GUIDE

Welcome

.....to Crawford Lake

The Crawford Lake Conservation Area is a natural environment park that is managed by Conservation Halton. The 468 hectare park includes unique geological features, extensive forests, a rare meromictic lake and a 15th century reconstructed Iroquoian village. The conservation area has significant natural habitat with a wide diversity of flora and fauna and approximately 19 km of nature trails.

Geology & the Niagara Escarpment

Crawford Lake is located on the Niagara Escarpment, Southern Ontario's most significant landform which winds 725 km from Queenston to the islands off the Bruce Peninsula in Ontario, the Niagara Escarpment has more than 100 sites of geological significance including some of the best exposures of rocks and fossils of the Paleozoic Era (235-570 million years ago), to be found anywhere in the world. Many interesting geological features occur at or near the Crawford Lake Conservation Area. A large island of bedrock (Milton Outlier) that was separated from the main escarpment includes well known landmarks such as Rattlesnake Point, Kelso Heights and the Nassagaweya Canyon.

Crawford Lake, A Time Capsule of Natural and Cultural History

Crawford Lake is a rare meromictic lake that contains information about the natural and cultural history of the area. Located atop the Niagara Escarpment, this small deep body of water has limited circulation and little oxygen below 15 metres (total depth of 24 metres). This ensures the preservation of annual deposits of sediment called varves. Similar to counting growth rings on a tree, these doubled layered bands can be accurately dated. Studies of the sediment led to the discovery of the nearby Iroquoian village.

Life on the Limestone Landscape

The extensive forests and escarpment cliffs at Crawford Lake provide habitat for a wide diversity of flora and fauna. The shallow calcium rich soil and rocky outcrops sustain many unique plants (eg., the maidenhair spleenwort and walking fern, the carnivorous sundew and the exquisite yellow lady's slipper). Warblers and woodpeckers abound while Turkey Vultures can be seen soaring through the Nassagaweya Canyon. White tailed deer, raccoons, chipmunks and red squirrels are some of the common mammals found at Crawford Lake.

Support Conservation!

Visit the Crawford Lake Gift Shop!

Visit our unique gift shop and take home a reminder of your visit to Crawford Lake.

- Native Crafts
- Birdfeeders and Guidebooks
- Garden Ornaments
- Jewellery
- Cozy Candles
- and much more!

Conservation Halton is a community based environmental agency that protects local ecosystems and contributes to the quality of life in communities throughout its area of jurisdiction known as the watershed. The Crawford Lake Conservation Area is part of more than 9000 acres of conservation lands that are being protected and are available for recreational and educational experiences.

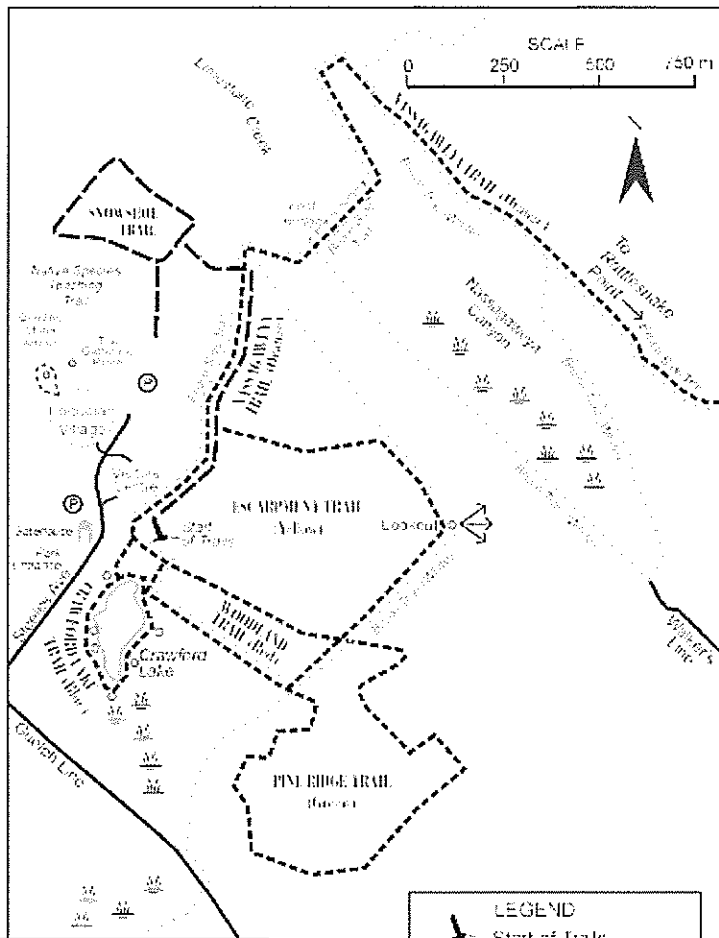
Conservation Halton

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Web site: conservationhalton.ca
e-mail: admin@hrc.on.ca

Crawford Lake
Telephone: (905) 854-0234
Fax: (905) 854-2948
e-mail: crawlake@hrc.on.ca

Crawford Lake Trails

Crawford Lake has approximately 19 km of colour coded trails consisting of a series of overlapping loops and a connecting trail to the Rattlesnake Point Conservation Area. Interpretive stations are located on the boardwalk surrounding Crawford Lake and at the Niagara Escarpment Lookout.



Please help protect this sensitive area by following our trail regulations.
Trail Regulations
No bicycles on trails
No fishing, swimming or boating
Dogs must be kept on leash and out of lake
Stay on marked trails (caution - poison ivy!)
Refrain from walking on cross-country ski tracks
Take only photos and walk softly on the earth
Horseback riding by permit only
Thank you.

LEGEND

- Start of Trails
- Area Trails
- Snowshoe Trail
- Bruce and Side Trails
- Niagara Escarpment
- Marsh
- Parking
- Interpretive Stations

Note Trail distances are measured from the start of trails and are estimates only

Crawford Lake Trail 1.4 km (30 minutes)

BLUE This elevated boardwalk around Crawford Lake surrounds the environmentally sensitive shoreline and forest. The boardwalk offers several interpretive stations explaining the formation of the lake and its colourful natural and human history.

Woodland Trail 1.5 km (45 minutes)

RED A hard-packed trail that easily accesses a cross-section of escarpment features including Crawford Lake's scenic woods and wetlands. Participate in a self-guided "Moccasin Walk" as you enjoy the inspirational signs posted along the way.

Pine Ridge Trail 3.6 km (1 hour 30 minutes)

GREEN This natural earthen trail takes you through rolling woodlands, pine plantations and open meadows. A wide panoramic view of surrounding escarpment lands can be seen from atop a massive glacial ridge. This trail is a loop that begins and ends on the Woodland Trail.

Escarpment Trail 2.4 km (1 hour)

YELLOW This natural trail winds through rocky woodlands and along the brow of the Niagara Escarpment. A highlight is the lookout where interpretive cairns and resting benches are located.

Nassagaweya Trail (NOT A LOOP) 7.2 km (approximately 2 hours one way)

ORANGE This natural earthen trail crosses the Nassagaweya Canyon and follows the escarpment brow to the Rattlesnake Point Conservation Area where several excellent lookouts are located. About 4-5 hours is required to complete a return trip on this trail.

Snowshoe Trail 3.4 km (1 hour 30 minutes)

This trail has been designed with snowshoers in mind. Enjoy the beauty of winter as you wind your way through field and forest.

Bruce Trail's Main Route 725 km

This well known Ontario hiking trail follows the Niagara Escarpment from Georgian Bay to the Niagara River. It passes through Crawford Lake Conservation Area where the main trail is marked by white painted blazes on trees and secondary access trails are blazed in blue.

University of Waterloo, Architecture Cambridge
Fall 2018
ARCH 5077

TWELVE ARCHITECTURES / Issues in Aboriginal Culture & Architecture

Dr. William Woodworth Raweno:kwas, B.Arch., Ph.D.
Mohawk/British, Six Nations of the Grand River



COURSE LECTURES & ASSIGNMENTS

Lecture 1
September 11

Introduction

Mary Oliver, The Journey.

Thanksgiving Ohon:ton Karihwateh:kwen "words before all else"

How can the study be carried out respectfully?
Can this course prepare you for work in an aboriginal setting?

Architecture of Creation

Sky World, Sky Woman, the back of the Turtle, the Twins, and natural earth cataclysm and recovery.

Lecture 2
September 18

Architecture of ancient origins

The migration to Iroquoia conveyed through Mayan, Toltec, Anazazi, and Cahokian territories.

Lecture 3
September 25

Architecture of the natural home

The archetypal landscape south of Lake Ontario.

Thanksgiving as ceremonial responsibility and cultural duty.

CRAWFORD LAKE VISIT

READ:

Nabokov, Peter and Robert Easton, **Native American Architecture**,
Wigwam & Longhouse, Northeast & Great Lakes,, pp.52-91.

Lecture 4
October 2

Cultural devolution

Masculine ascendancy and the loss of relationship to the natural world and architecture.

READ:

Nabokov, Peter and Robert Easton, **Native American Architecture**, Mound, Town & Chickee,
Southeast, pp. 92-121.

Lecture 5
October 9

Architecture of the Great Law of Peace

The origins, journeys and instructions of the Peacemaker, **Condolence** and the conduct of clear minded duties., Apotheosis in matrilineal social confederation., The longhouse as metaphor of culture and architecture. Wampum as archetype and mnemonic.

READ:

Nabokov, Peter and Robert Easton, Native American Architecture, Earth Lodge, Grass House, and Tipi, Great plains, pp. 122-173.

Lecture 6
October 16

Natural architecture – the origins of the archetypal long house

Examining the archaeological evidence in indigenous mind.
Addressing the earth, sky field, winds, and water.
Measurement by the body, trees, and bush.
Accommodating clanology and matriarchal duties.
Architectural responsibilities, men, and form.
Protocols of integrating design.
Ceremonies of the constructional process.
Bio-sustainable surrender, and recovery.
Protocols, recording, and examination of exhumation.

VISIT to the longhouse emplacement at R.A.R.E., Springbank site.

READ:

Nabokov, Peter and Robert Easton, Native American Architecture, Pit House & Extended Tipi, pp. 174-187.

Lecture 7
October 23

Architecture of intentional long house settlement

Aboriginal archaeology of the Eastern Woodlands surrounding Lake Ontario.
Ecology of friendship, relationship, and community within culture.
Spatial accommodation, adoption, and adaptation among cultures.
Forms of long house urban settlement practice.

READ:

Nabokov, Peter and Robert Easton, Native American Architecture, Winter House, Igloo, & Tent, Arctic, pp. 188-225.

VISIT TO AN ARCHEAOLOGICAL SITE – Kitchener hosted by Dr. Rob MacDonald
FINAL assignment - "longhouse"MODEL

Lecture 8
October 30

Architecture of adaptation and adoption

Architectural encounters with European culture, and the message of *Skanadar:io*, Handsome Lake, the prophet, the Quakers, and the Masonic Order.

READ:

Nabokov, Peter and Robert Easton, Native American Architecture, Plank House, Northwest Coast, pp.226-285.

Lecture 9
November 6

FIELD TRIP TO THE MOHAWK INSTITUTE RESIDENTIAL SCHOOL AND THE MOHAWK CHAPEL

Lecture 10
November 13

Architecture of dispersal and reconfiguration

The aboriginal retreat to the Grand River watershed, the American rebellion, the consolidation following the War of 1812, and recovery of peace time native agrarian life

and the southern Ontario settler farm archetypes. Six Nations and the construction of Iroquoian culture and identity as ethnology, the Smithsonian, Cranbrook Academy of Science and the romantic recovery.

Nabokov, Peter and Robert Easton, **Native American Architecture**, Wood, Earth & Fiber, California, pp. 286-321.

Lecture 11 **Architecture of cultural assault and colonization, and movement toward facing the "shadow" in healing**
November 20

The construction of the reservation system, the enforcement of the Indian Act of Canada, and the residential school system, disenfranchisement, truth & reconciliation, compensation. "Flashpoint" actions at Oka, Ipperwash, and Caledonia, and the *Idle No More* movement. The architectural agenda in working within native communities.

Nabokov, Peter and Robert Easton, **Native American Architecture**, Hogan, Ki, and Ramada, Southwest I, pp. 322-347.

Lecture 12 **Architecture of the unconscious streaming of indigeneity**

November 27 Traditional indigenous architectonic principles, aboriginal "parti", bio-mimicry, "organic" architecture, Arts & Crafts movement, the work of Frank Lloyd Wright.

READ:

Nabokov, Peter and Robert Easton, **Native American Architecture**, Pueblo, Southwest II, pp.348.