Researching and Restoring Your Home

Presentation by Keith Overend
for the Bertie Historical Society
and the Fort Erie Public Library
Wednesday February 19, 2014

RESEARCHING

Education

Public Libraries

Museums

Internet

Neighbours, former Owners/Tenants and their descendants

Heritage Tours

RESTORING

- Live in the building for at least a year without making any changes.
- Water, in all its' forms, is the enemy.
- Landscaping and foundations.
- Use solid lumber everywhere.
- If the roof has problems, replace it first.
- Take a careful look at original plaster ceilings, especially on the top floor.
- Restore original wooden windows.
- For interior work, install all plumbing first.
- Electrical wiring next.
- Insulation.
- Weather proofing and weather stripping.
- Painted trim.
- Zone heating.
- Natural Cooling.
- Ventilation Rover's way.
- Fire safety and sprinkler systems.
- Finding and supervising competent contractors.

RESEARCHING

Education

College and University courses

- Niagara College www.niagaracollege.ca
- Brock University *www.**brocku**.ca*

Courses from others

- Willowbank School *www.**willowbank**.ca*
- local Boards of Education

  dsbn.edu.on.ca

  *www.**niagara**catholic.ca*

Seminars and Workshops

- the above schools
- Heritage and History groups

Books and Magazines

- *Well Preserved*
- *Build Your Dream Home for $5,000*
- *Fine Homebuilding*
- *Old House Journal*

Network with Other Like Minded People

RESEARCHING

Public Libraries

Local Branches www.fepl.ca

- Crystal Ridge
- Central
- inter-library loans

Brock Libraries www.brocku.ca/library

Niagara College Libraries nclibraries.niagaracollege.ca/library

Other college and university libraries e.g. Willowbank ***www.willowbank.ca***

RESEARCHING

Museums

Fort Erie Historical Museum, 402 Ridge Rd. N., Ridgeway *www.**museum.forterie**.ca*

Port Colborne Historical & Marine Museum, 280 King St. www.portcolborne.ca/page/museum

Niagara Falls History Museum, 5810 Ferry St. www.***niagarafallsmuseums**.ca*

Welland Historical Museum, 140 King St. www.*welland**museum**.ca*

Niagara Parks Commission sites www.niagaraparks.com/niagara-falls-attractions/niagara-falls-heritage.html

Pioneer and Heritage Villages

- Wainfleet Heritage Village
- Upper Canada Village *www.**uppercanadavillage**.com*
- Doon Heritage Village waterlooregionmuseum.com
- Black Creek Pioneer Village blackcreek.ca

Various municipally owned heritage sites

- often available for inspection upon request e.g. Roselawn portcolborne.ca/page/roselawn_contact

RESEARCHING

Internet

Facebook – e.g. *Ridgeway, Ontario, History*

Building Stories - *www.buildingstories.co*

Personal web sites

Government web sites

e.g. Ontario Ministry of Tourism, Culture and Sport mtc.gov.on.ca/en/heritage

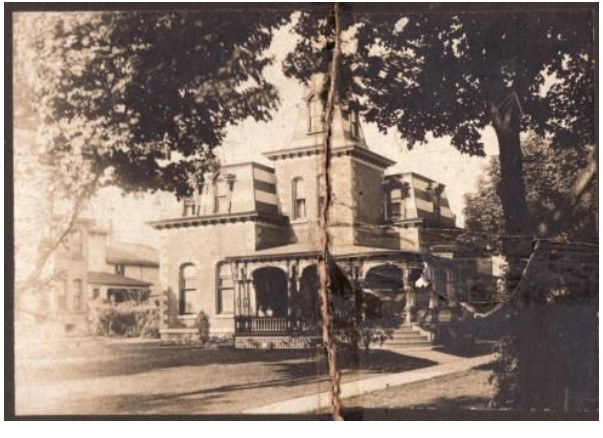
Corporate web sites e.g. *Abatron* *www.abatron.com*

On line tours of heritage districts and houses

RESEARCHING

Neighbours, former Owners/Tenants and their descendants

Let everybody know you are looking for information and old photographs of your house and immediate neighbourhood. Sometimes even artifacts may be returned.



RESEARCHING

Heritage Tours

Walking & Driving

- often available at Tourist Booths, Chamber of Commerce offices, and town halls
- increasingly available on-line

House Tours

- often single day events given to support various charities
- summertime and Christmas are the two popular times for these tours

RESTORING

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RESTORING

Live in the building for at least a year without making any changes.

Learn about the building and how it performs under various weather conditions.

What at first blush appears to be a strange layout may prove to be very workable.

Problems will arise that you were not even aware of e.g. pipes that are susceptible to freezing.

You might learn to love that wallpaper.

RESTORING

Water, in all its' forms, is the enemy.

Rain, snow and sleet can damage all exterior surfaces from roof to foundations.

- Install a good eavestrough and downspout system. If you can't maintain it on a regular basis install a gutter guard system.

Condensation from warm air migrating to cold areas and cooling back to it's water form: in walls, undersides of roofs and on windows.

High water tables can cause problems in basements and crawlspaces.

Improper grading can move water towards foundations, sidewalks and other exterior structures.

Most older buildings lack foundation drainage.

Leaking plumbing from water supply lines, fixtures or sewer lines, can cause severe hidden damage.

RESTORING

Landscaping and foundations.

It's bad if any part of your yard slopes toward the house (or anything else you want to protect).

Ideally, the yard should slope away for at least 8'.

Often swales (mild ditches) are needed to direct water to the appropriate outlet. Treat them as landscaping features.

Plant "foundation plants" away from the foundation or any features made of wood.

Allow plenty of air and sunshine access to the whole house for at least part of the day.

If you need foundation drainage, get it!

If you want, the rainwater from your eavestrough can be diverted to water tanks. This water can be used for gardens.

If mortar is missing from your foundation, replace it with an all lime mortar. Do not use Portland cement based products on an old house.

Often porches were poorly founded. A piece of shallow rock or nothing at all can frequently be found at the bottom of a post.

RESTORING

Use solid lumber everywhere.

It’s proven to last hundreds of years, properly installed and maintained.

Nothing else comes close.

RESTORING

If the roof has problems, replace it first.

Water from a leaky roof can percolate down through the entire building.

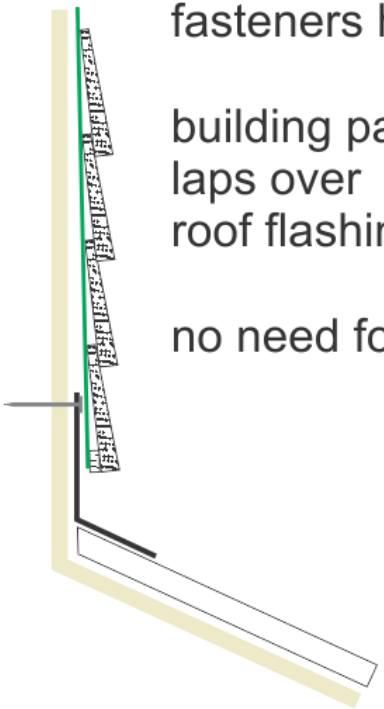
A well installed metal roof will last your lifetime.

Be very aware as to how the flashings will be installed. Ask lots of detailed questions. Get all the promises in writing.

A piece of metal slapped up against the outside of any siding material or chimney with a bead of caulking on top is **never** a proper flashing detail. It's sloppy work by ignorant people.

wood siding

GOOD

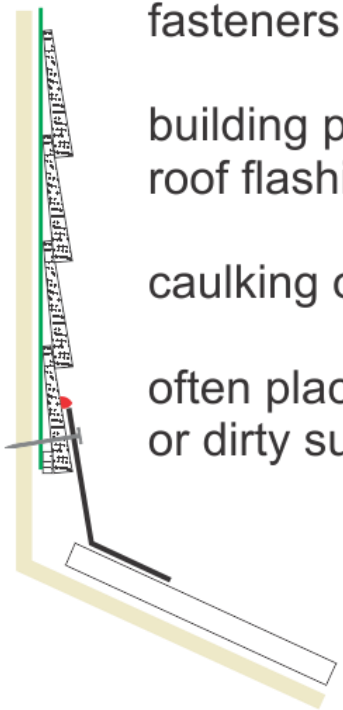


fasteners hidden

building paper
laps over
roof flashing

no need for caulking

BAD



fasteners exposed

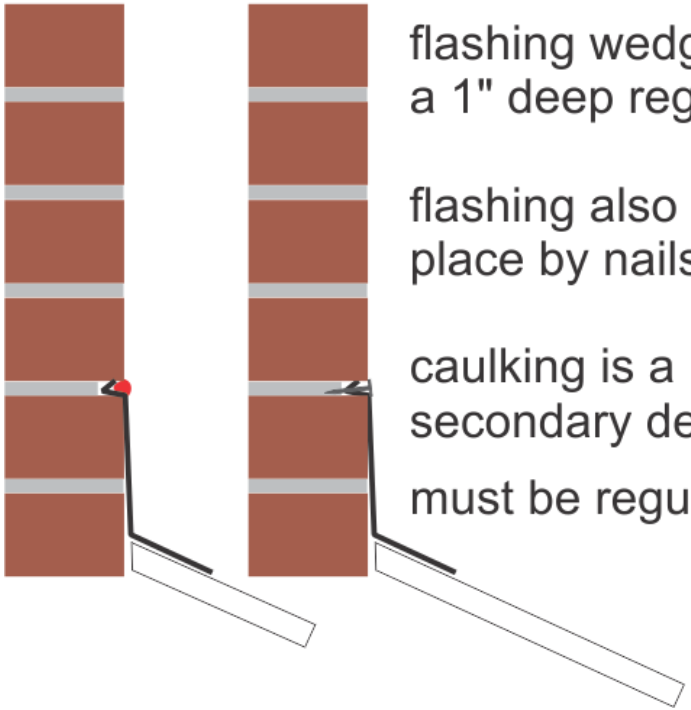
building paper is behind
roof flashing

caulking only line of defence

often placed on old paint
or dirty surfaces

brick

GOOD



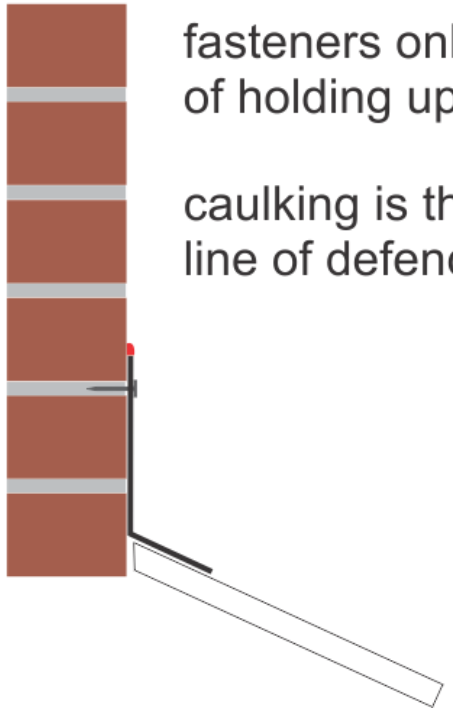
flashing wedged into
a 1" deep reglet

flashing also held in
place by nails or wedges

caulking is a
secondary defence

must be regularly inspected

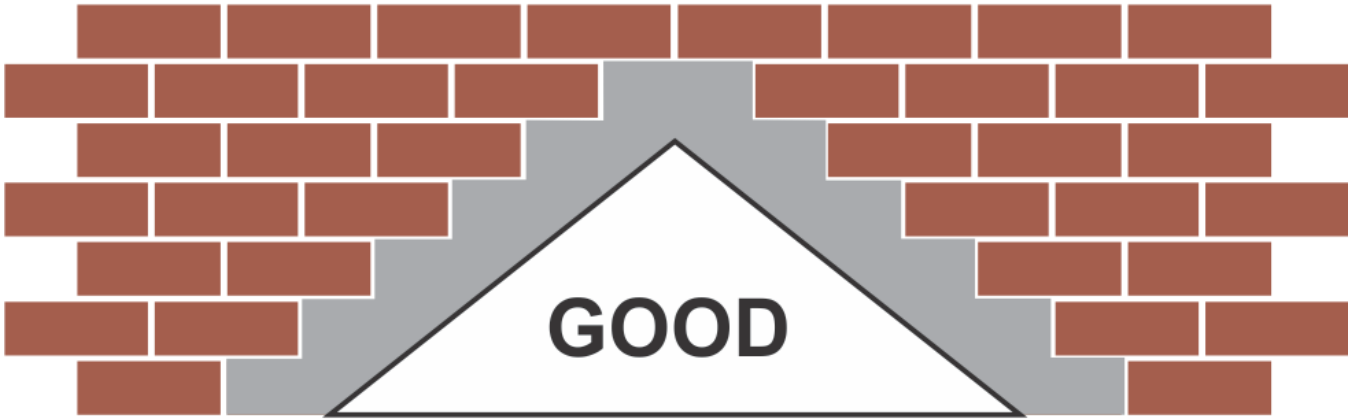
BAD



fasteners only means
of holding up flashing

caulking is the only
line of defence

roof flashing details



RESTORING

Take a careful look at original plaster ceilings, especially on the top floor.

This applies to ceilings under bathrooms and upper floor kitchens as well.

Leaks from anytime in the building's history may have weakened the plaster. Someday it just lets go.

A piece of plaster 2' x 3' can weigh more than 75 lbs. Falling from a 10' ceiling it can cause a tremendous amount of damage.

My technique is to install ½" drywall directly over the plaster. Use lots of long screws.

A drywall lift and rolling scaffolding make this job a lot easier on any ceiling over 8' high.

RESTORING

Restore original wooden windows.

There is almost no wooden window beyond repair.

A good fitting storm window on the outside, a single glazed sash and a second interior storm window is the equivalent of triple glazing.

Many households never open most windows. That means storms can be left up year round. That helps with staying cool in summer.

Properly maintained wooden windows should last centuries.

If condensation forms on windows, wipe it off. Keep window sills dry as well.

Buy and use blinds or curtains to reduce heat from the sun in the summer and retain that heat in the winter.

RESTORING

For interior work, install all plumbing first.

It’s the largest, most immovable object.

Never betray structure for plumbing. Think of wall mounted or macerating toilets as an option.

Use copper for water and ABS or cast iron for waste.

Buy high quality shut off valves. You need them to work in 20 years.

Beware of pipes that may freeze.

Pay the extra for toilets that can swallow canon balls.

RESTORING

Electrical wiring next.

If a house has wiring that is suspicious or inconvenient – rewire! Get an *Electrical Safety Authority* permit and inspection.

- Contact the *Electrical Safety Authority* at http://www.esasafe.com or 1-877-372-7233.

Don't be afraid to add extra receptacles and circuits where ever you think they might be needed.

Most communication is wireless, so no need to wire for that anymore.

Place wiring behind gypsum cove moulding for horizontal runs in second floor applications.

Consider surface mounted wiring.

RESTORING

Insulation.

Every old home can be insulated to some extent.

Three primary areas: attic, walls and basement.

Blown-in cellulose works *very* well for attic and wall insulation. It's dirty work - best done during other renovation activities.

Icynene, a water-blown foam insulation that can be sprayed or poured, is great for ruble stone foundations in dungeons.

As with most work, the devil is in the details.

There is no such thing as too much insulation. Heating bills are **forever**.

RESTORING

Weather proofing and weather stripping.

This is very important for both comfort and your budget.

The tighter you make the seal, the better. Period.

You can tighten up an old house to **any** standard – it just takes more effort.

V-weatherstipping, a vinyl strip you fold in half with an adhesive strip on one side, is an excellent product.

Used in two of three layers it can seal almost any operable door or window.

Heat shrink film on the inside of windows works very well at a cost of $15 for four or five windows.

Close blinds and curtains to keep heat in.

Seal up light fixtures, electrical outlets and switches, even on interior walls.

The ultimate is to caulk every seam on every piece of casing and baseboard in the house.

Vapour barrier paint and impermeable wallpaper are good at stopping water vapour transmission through the walls themselves.

Sometimes the old way is just uncomfortable. Plaster directly on an exterior masonry wall will **always** be cold. A new wall with insulation will feel much better.

RESTORING

Painted trim.

Victorians never met a surface they didn't want to change.

Almost all interior wooden surfaces were painted to look like a different kind of wood.

Faux finishes were very popular.

If it wasn't painted it was papered.

The only trim to be left untreated or just oiled belonged to the poorer home owners.

Stripping Victorian era wood back to bare wood is **not** restoration!

At least document old surfaces before destroying them.

RESTORING

Zone heating.

Old houses were designed to be heated in zones, using several fireplaces and stoves as necessary.

Dungeon basements were seldom heated.

Many people prefer cooler bedrooms.

A modern version of zone heating using gas fireplaces and electric baseboard heat can be very economical.

Remember to always heat all the plumbing to the point it will **never** freeze.

No portion of the interior should ever hit the freezing point… that’s too frugal.

RESTORING

Natural Cooling.

Most old houses are more successful at staying cool than at staying warm.

High ceilings keep the heat out of reach.

Tall narrow windows with thick walls mean not a lot of direct sun.

Using shutters, blinds and/or curtains during the day will keep the heat out.

Plenty of doors with screen doors – lots of screen area.

Usually just a few strategic windows with screens are needed.

Awnings were often installed over windows to block the summer sun.

Many houses had large deep porches that kept the high summer sun away from the walls and doorways.

Towers can act like giant chimneys.

Trees can noticeably affect the micro climate around a house; shading, blocking wind and even altering snow drift patterns.

Ivy on masonry will keep a house cooler, but it involves continuous pruning work to safeguard wooden components.

The first rule of natural cooling:

If it’s warmer outside than in, keep all doors, windows and curtains closed. If it’s warmer inside than out, open everything up.

RESTORING

Ventilation Rover's way.

If you really tighten your house up you might be tempted to install a heat recovery ventilation unit.
They are very expensive to install, need constant cleaning and cost money to run – forever.
Better to combine a healthy house with natural ventilation.

Healthy houses minimize the use of or do not contain products that can produce fumes.
This includes chip board, medium density fibre board, plywood, artificial carpeting and flooring.
Minimize the use of air fresheners, incense and candles.

Natural ventilation includes doors and windows when it's pleasant outside and dogs when it's not.
A dog will demand to go outside several times a day, 365 days a year, even in the coldest winter day.
Each time involves opening the door twice – go out, come in.

RESTORING

Fire safety and sprinkler systems.

More buildings are lost to fire than any other means.

Fire alarm systems are good (and mandatory).

- recent advances in wireless technology make retrofitting older buildings easy.

Sprinklers are the best. Look no further than the recent tragedy at L'Isle Verte.

- best installed during other renovations. Finish ceilings first.
- much cheaper to install and maintain an exposed system. Just paint them out.
- may involve installing a whole new and larger water service from the road.
- should make your homeowners insurance cheaper.

RESTORING

Finding and supervising competent contractors.

Finding good contractors:

- Word of mouth
- inspect previous jobs, talk to previous clients

Supervising the work:

- Hover over them like a mother bird.
- Treat the workers well. Provide a bathroom, drinks, a lunch area and the occasional pizza day.
- Learn their names.
- If just unsupervised workers show up, consider offering a bonus for a great job - $50 a piece.
- Nip any potential problem in the bud, never let it fester. Ask questions.
- Never let a bad contractor muddle on.
- If it's wrong, tear it out and do it right. Never compromise just because it's already there.
- Remember, the building code is the bare minimum – like a **D-** at school. It's a pass, but do you want a **D-** house?