

## An interview with Lee Caswell on the restoration of the “Checkered Cottage” in Port Hope, Ontario

### WHAT DID YOU EVER SEE AS GOOD BONES FOR THIS OLD HOUSE? FROM THE FIRST PHOTO, THERE IS NOT MUCH, IF ANYTHING SHOWING.

You are correct! The original photo shows little appeal, at least from the curb. For starters, look at the cornice of the building; it is done in pale green aluminum. It swells slightly as it meets the roofline. This to me suggested a cornice or stepping at the roofline.

The centre chimney is an early feature as well. Dormers appeared old if not original with old/original glazing as well as some rear windows (6 over 6). Ignoring a great deal of bastardization, this little house peaked my interest! It also helped living nearby for a number of years; the worst looking house in a great neighbourhood called “Englishtown”, full of small but charming cottages dating to the mid 19<sup>th</sup> century. I concluded the house was from this same period like most of the others.



Before



After

### WHAT WAS THE NEXT STEP IN DETERMINING THE VIABILITY OR DISCOVERING IF ANY ARCHITECTURAL INTEGRITY REMAINED WITH THE STRUCTURE?

As you can see from later photos we uncovered a brick house with paint present. The aluminum covering made it difficult to analyze the condition from the outside, prior to our “metal-peel”, après purchase. Luckily, I say that for me only, the house was plaster on brick construction. This meant I could assess the condition of the structure, from the inside by looking at the plaster/brick condition. I found it was in pretty good condition, save for one corner, which through neglect suffered water damage. Indeed, on the outside, some aluminum was loose and the brick cornice was visible at the rear of the house. However, the bricks



had been “chopped off” to accommodate the aluminum siding and wooden strapping.

### **SO YOU TOOK THE PLUNGE. WAS IT SMOOTH SAILING FROM THEN ON?**

In a word, NO!! The day the offer to purchase was presented; rain was pouring down the staircase through a person-sized hole in the roof!

I took a light-handed approach in removing layers carefully, so not to destroy any original features. Layers disappeared and what emerged was a painted brick house with chopped bricks where they impeded the Aluminum man. What also appeared under the porch (never painted) was the 2-tone brickwork (piebald or checkerboard pattern) on the front face of the house.

Painted brick was, I believe a “solution” to seal a house from draft; just as aluminum did at a later date. What do these two attempts to seal this house tell you? That it was very cold and drafty. My original intent was to simply paint the house, but upon discovering the checkered pattern, I felt a gun was to the head to carefully clean and restore the brickwork. We secured two colours of brick in the proper size from the Niagara area,

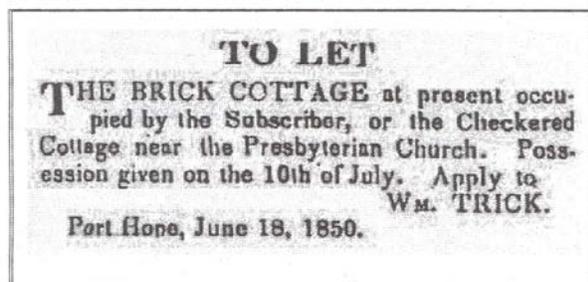
through the noted Restoration Architect, Peter Stokes; and a young graduate from an historic masonry course began the long process of chipping out the damaged brick and replacing it with the proper colour. I did the brick cleaning myself ... a task I wish to never repeat!



### **YOU WERE TOTALLY UNAWARE OF THE CHECKERED PATTERN PRIOR TO PURCHASE. WHAT A PLEASANT SURPRISE THAT MUST HAVE BEEN.**

Pleasant, yes, but a major unexpected expense at the same time. An estimate for chemical cleaning and brick repair was \$69,000. I had to find another solution. An architect friend advised me of a product called Peel Away. For less than \$2,000. in product cost and a trusty \$200. power washer I did the work myself. My labour was free and the estimate for time spent was perhaps 300 hours.

Daunting and hazardous and as well, one had to be extremely careful with water pressure. Mortar or brick could disappear quickly if one was not careful. I found the brickwork and brick quality to be of the best quality on the front of the house. This applied to mortar quality as well. It was like the old adage “put your best foot forward”, and indeed the original builder did! Around the same time as I was struggling to remove paint along with the extensive brick repair, I discovered, while at a local historical society meeting, an historic ad found in an 1850 local newspaper. The ad (pictured) describes the “Checkered Cottage” for let (rent) near the site of the Presbyterian Church (which is presently a duplex across the street). What this little two by three inch ad did was help date the cottage, name the builder (William Trick) and give us a name for our home, “Mr. Trick’s Checkered Cottage”.



## **GIVE US SOME IDEA OF THE OTHER RESTORATION TECHNIQUES USED AT THIS EARLY STAGE IN THE PROCESS.**

At the same time the brickwork project was ongoing, practical things like a repaired and waterproof roof were a priority as there were many layers of asphalt shingles present, most in a deteriorated state.

We removed them and any rotted roof boards (about 40%) and replaced them with pine boards as before. The roof plate (the beam which connects the roof structure to the brick walls contained a fair bit of rot. It was chiseled away and replaced where necessary thus giving a solid attachment point for the eaves, which were completely missing. Many houses from this era contained internal gutters and I concluded these had been present at one time. An internal gutter is basically a hollowed out log lined in sheet metal where the rainwater flows. They are an elegant feature giving a horizontal line at the eave level. The internal gutter is an item found in England where they worked fairly well I presume; but in our cold Canadian winters especially in southern Ontario we have constant freeze-thaw, these gutters even with modern liners don't stand up well.



I designed a pseudo internal gutter using moldings found on the dormers (original moldings), but the main difference is there is a traditional eaves trough at the end of the eave. A mock-up of the gutter was constructed and tacked in place. Dimensions were found on nearby cottages and were a starting point for the scale. We torched on a waterproof membrane on this as well and it worked like a charm. Now that the roof and eaves were secure, work on the interior and construction of the new addition could commence.

We also decided to dig up three sides of the old house foundation, leaving the fourth side, where the new addition would go, alone. This was a necessity as moisture and a flow of water had been present in the lower level of the house. We had a backhoe dig down to the footings, and then cleaned/dug by hand where necessary. This required a gentle approach so not to disturb any of the foundation. We encountered no problems except for the one corner, which was damaged in the past by neglect. We placed big-O drainage pipe with a fabric sleeve to keep out any soil or mud and loose gravel on top to keep soil away from the water flow. Then any missing mortar among the stones of the foundation was renewed, then the entire foundation was parged with mortar and waterproofed to eliminate any water permeating the foundation toward the inside of the house. Back filling then occurred. Almost immediately the interior started to dry out and the smell of mildew, etc. disappeared.

## **WHAT COST SAVINGS IF ANY HAPPENED AT THE EARLY STAGES OF RESTORATION OR DEMOLITION?**

That is a good question. As mentioned before, we removed a falling down garage addition built in the 1950's. It was poorly built and ready to fall down! It was clad in aluminum, as was the old house. We removed all the siding and took it to a metal recycler and received around \$1000.00. Talk about found money. Also, the 2 by 4's contained in the garage were all de-nailed and saved for future use. They came in handy

when strapping the old house walls to accept drywall and insulation or strapping cement floors to install new pine floors. The only other salvageable items were a claw foot tub, a fairly new high efficiency oil furnace (which we sold as we were switching to gas) and all period moldings, windows and doors. The house had many layers of flooring and wood paneling to remove. We saved the wood paneling to board up openings during construction. Any copper wiring or copper piping was also recycled. The house had to be completely rewired and plumbed.

**WHY DID YOU FEEL THIS HOUSE NEEDED AN ADDITION AND WHAT PURPOSE WAS IT TO SERVE? WASN'T IT BIG ENOUGH ALREADY?**

The house was cramped and had a very awkward entrance. The porch roof was deemed to be original and underneath it was a replaced door and unusual brick infill. Once again to try to stay warm they removed the original sidelights and transom and bricked them in. I believe this happened about the year 1900 as they strapped a few walls inside and added new lathe and plaster right over pre 1900 wallpaper. This main entryway stumbled into a tight hall with 3 doors and a staircase in a 3' by 6' area. You had to fall down the staircase to let someone in the door!

I approached an architect friend with a wish list and some concepts and he drew up plans based on tearing down the 500 square foot falling down garage addition attached to the house. His bold idea was to tear down this addition and build on the same footprint. This had to go to committees of the town for approval. The town made us sign an encroachment agreement with regard to the porch as it was solely on town property. The eaves of the house also encroached, as did a fence. This agreement allowed us to rebuild on the property line (as was the old garage) thus maximizing the rear and side yards. This new addition provided a new main entry one step up from grade. The new entryway is spacious with closets and landing areas that are more than adequate for today's living. This new addition contains a large sitting room, balcony type terrace, small library area, at the lower level the kitchen, a three piece bath and laundry/storage room.

Hiring an architect was a very good move; he knew I wanted a seamless look with the old and new. He lined up floor levels and ceilings in the old and new sections, had structural iron beams engineered, and designed a staircase in this new section. The old staircase, in the old section, which had been previously replaced, was reinstalled and it now serves as backstairs. The old rooms took on new uses such as the parlour becoming the new master bedroom and the tiny older kitchen became an ensuite bath. With the new addition came a new life for this tired old house and it increased the square footage to 2,500. My foremost thought was respect the old house; don't swallow it with a new inappropriate addition.

**WITH THE NEW CONSTRUCTION AND RESTORATION, DID YOU USE UP TO DATE BUILDING TECHNIQUES? PLEASE DESCRIBE THE TECHNIQUES AND THE ADVANTAGES.**

Yes, I used many modern techniques in building the new addition as well as in the restoration of the old. Techniques like urethane spray foam insulation, which is a time/labour saver as well. A professional team arrived after we had strapped the walls, where necessary and were ready for them. The two-part foam is delivered via a hose from the curbside. It hardens in about a minute and is a great product, as you don't need a vapour barrier. It is also impervious to draft. It literally seals every nook and cranny! Another bonus with this product is sound reduction; the house is practically sound proof. In the new addition I used the Styrofoam forms, which fold open and lock together to accept the concrete of the foundation. This is a time saver as well as no forms for

concrete require neither erecting nor knockdown. Also the vapour barrier and insulation are present with the Styrofoam.

Footings for this project were a new product called "Form-a-Drain". The concept is a hollow plastic eight-foot box, the size of a 2 by 6, with perforations on one side. This box when placed on the exterior side of the foundation forms the drainage system to carry water away from the foundation. A normal 2 by 6 forms the other half of the form for the footing. Some of these products are more expensive than traditional materials but the labour savers or "killing two birds with one stone" aspect saves money in the long run. Modern technology whether it is for new construction or restoration should be embraced and in most cases energy savings go part and parcel with this modern technology.

**ONE OF THE BIGGEST DILEMMAS IN THE RESTORATION PROCESS IS THE USE OF INAPPROPRIATE MODERN WINDOWS WITH THE WRONG MULLION PROFILE. WHAT TYPE OF WINDOWS DID YOU USE?**

I believe in the use of good old-fashioned double hung windows with storms. Many people are sold "a bill of goods" with regard to modern windows with inert gases sandwiched between double-glazing. I believe that the old well-fitting windows and storms are as good or better than many new styles. The seal of new windows seems to always fail (usually shortly after the guarantee has expired) and fogging ensues. I used antique windows from a building about 50 yards away, which had been removed about 20 years ago and given to a friend, Clay Benson. He in turn passed them on to me as an end user. They were an exact fit and we were lucky to have them in excellent condition and better luck to have the exact number we needed.

I firmly believe in old pine, in this case the windows were 150 years old; made from "first growth forest" wood, which is high in natural resins, which provide great quality and long lasting timber. The other bonus was almost all the original glass was intact; as well, the putty was in great condition in most cases. We did minor repairs, built a frame to house them and voila: recycled windows! I had large one pane storms made with tempered glass sheets made to measure. Luckily the storms are easy to remove in most cases for the summer months.

The other thing I did, where I could, was install an energy saving film on the old windows or storms. Some of these "filmed" windows will stay on permanently others can be removed. In a previous home I had an oriental carpet ruined by constant sun exposure. Heat loss issues are dealt with as well. Heat is kept out in the summer and heat is contained in the house in the winter. The storms are put on with antique turnbuckles and a foam gasket seal. They work well!

**SOME OF THESE WINDOWS ARE NON-TRADITIONAL 4 OVER 4 OR 2 OVER 2. WHERE DID THESE COME FROM? THEY CAN'T HAVE COME WITH THE "FOUND" WINDOWS, OR DID THEY?**

You are correct in stating these did not arrive with our found windows. We fabricated them in a daring way. Literally they were "free-hand" cut on a table saw; right down the middle of the mullion! Our contractor was bold and "just did it"! It worked out beautifully once a new sash side was installed and paint was applied, you literally could not tell the difference. Furthermore, we made the 2 over 2 and 4 over 4 out of one 6 over 6 window! No waste.

The kitchen contains a bay window and the fireplace room a Venetian window. The Venetian window was not original in the old house. I found a topographical map of the town Ca 1853 showing the side profile of the house. It showed an original 6 over 6 windows in this location. When I purchased the house this window had been changed to an inappropriate 1950's horizontal one. It had to go! The neighbourhood is rife with these

Venetian windows; in fact, I had restored missing Venetian windows in a home in this very neighbourhood 20 years earlier! I like to think this window works well; allowing the extra light needed to enhance a rather dark (read window-shy) room.

#### **WHICH TYPE OF SIDING DID YOU USE ON THE NEW ADDITION?**

A cost effective solution, which was also in keeping, was cedar shingles. I bought a less expensive grade from the building supply store and picked through them carefully and nailed them on myself with an air gun stapler. This was a quick and easy solution, which almost anyone could attempt. The total cost was under \$500.00 for materials, much less than any other siding. This type of cladding is prevalent in our area for out buildings or additions. The decision was made to leave it natural and if it doesn't weather the way I like, it can be painted or stained in the future.

#### **WHAT WAS THE INSPIRATION FOR THE CEILING DETAIL IN THE KITCHEN AREA? ALSO, FLOORS ALL LOOK CONSISTENT, ARE THEY ALL NEW?**

The ceiling detail in the new area, the kitchen, was inspired by the old fireplace/kitchen area. When we purchased the house, the plaster ceiling was completely removed from the fireplace level (the lower level of the old house). Originally, one corner of this area housed the kitchen, and it seemed to never have had a plastered ceiling, just painted (whitewashed) underside of floorboards and floor joists. This became the inspiration for the new kitchen area. It is at the same level as the fireplace area and is treated the same.

Any new beams were structural steel and were boxed and beaded to hide the steel. They were also a great foil to hide any wiring or lighting. This effect, along with the underside of the floorboards, formed a consistent look from the old to the new addition. As well, the floors underfoot at this level are new and were laid over one old and one new concrete floor. The floors were strapped and new pine floors were laid over the concrete. This is a seamless look from old to new — a blur from old to new. Consistency in materials and methods is of paramount importance for a seamless look.

#### **THE INTERIOR OF YOUR NEW KITCHEN APPEARS TO BE ALL BRICK? WAS THIS NOT A COSTLY APPEARANCE TO INSTIGATE?**

Fooled you! The kitchen contains one wall, which is the previous exterior wall of the house. The other two walls are fake brick veneer. They are a quality, molded brick patterned on antique bricks and made of concrete. They look extremely realistic and are attached to the under structure — in this case plywood — and mortared. I laid them only where they would show, behind the open cupboards and on the exterior wall near the windows and door case. Originally I had chosen a cheaper brick veneer, in which the brick size was 2/3 of the original bricks. The cost saving was about \$300.00, but I opted to spend the money and keep the look consistent. I seem to use this word a lot, don't I? The finished look was too important to muck up at the last moment. Sometimes we have to just hold our noses and jump!

#### **TELL US WHAT TYPE OF PLUMBING AND HEATING YOUR PROJECT CONTAINS AND TELL US HOW IT IS WORKING.**

The plumbing is entirely Pex plastic piping. This system is truly wonderful to work with. Copper prices had soared during our construction and the savings using Pex versus copper were substantial. The lines are extremely easy to feed and no soldering is required. Minimal tools are required and can be rented rather than purchased if required. Different areas of the home can be "zoned" to make shutting them off easy. There are no flames required during installation like copper plumbing; making the project that much

safer.

I installed two on-demand, tankless water heaters as well; one being a gas one of moderate size and the other electric. The electric on-demand water heater is used only for a powder room tap, kitchen sink and dishwasher (all located very close to the tankless source). The gas on-demand water heater meets all other the needs in the house; that is, showers, tubs, washing machine and all other sinks. This is a great system and works extremely well.

At my previous house I installed a huge on-demand water heater at a great cost and it worked well; but I found it way too big for our needs. This smaller one seems more efficient, quieter and proficient at delivering hot water even when turning on and off while in the shower. This is the greatest test of all with these systems. When one shuts the hot water tap off; the water heater shuts down. When you turn the hot water back on, it has a cold break until the water in the pipe gets hot again. We installed the electric version simply not to interfere with shower use. A great move, the whole world should be using these!

The heating was a more complicated issue in this house. The ceilings on the lower level being exposed meant neither wires, ducts nor plumbing pipes could be present without ruining the look. I had investigated two or three different types of heating and they priced out between \$30,000.00 to 40,000.00. I took the plunge with a gas fireplace at the lower level. This large gas fireplace was built into a corner, discretely placed below grade level. The company I used had a blower unit, which can take the heat and shoot it to other areas in the house. These blowers operate with a simple rheostat, which can be used as required. Luckily the ducts were discretely placed under a staircase, so were nicely hidden.

I also allowed for another gas fireplace/stove to be added to the large room on the upper addition level, which we chose not to install at this point until we had gone through a winter. I also allowed for a couple of discrete electric heaters. Much to our surprise we have not turned on any electric heat; only the rheostats on occasions. The rooms in the house are also self-contained; that is, they each have doors to keep heat where required. The days of heating vast open spaces when we use only one or two rooms are going, going, gone! We have gone through three winter months already and compared to our old house (same size house), which was very energy efficient, our consumption is approximately 2/3 that of the old! By the way we have seen -30 degree Celsius weather! Another innovative idea I used was to extract heat built-up behind the fireplace. I discovered while doing some plumbing behind the fireplace (behind the enclosed wall) that there was a considerable heat build-up (due to the fact that the unit needs the combustion ductwork to be un-insulated) . My contractor suggested installing a tiny computer fan, to discretely suck the heat and move it to the room above, namely the ensuite master bathroom. This fan is very quiet and low speed (read low energy consumption) and it magically adds heat; which would be otherwise trapped, near the toilet. This is extremely helpful in the middle of the night; no more cold feet! Another idea was to install a small hidden fan to extract the heat at the ceiling from the fireplace room. This fan transfers the heat to a previously installed floor grate under the staircase in the old house. Again, we used a rheostat to control the fan and use it only when we need heat in this area. These were both inexpensive and easy ideas which when incorporated during construction giving us options when and where we need heat in the winter.

**YOU SEEM TO HAVE CREATED A HOUSE OF WOOD WITH YOUR INTERIORS.  
WHAT WERE THE INSPIRATIONS FOR THE MANY WOODEN INTEROR  
ELEMENTS?**

Some of the ideas for the interior surfaces had been filed away in my brain for many

years. The new addition sitting room walls were inspired by a store interior I had seen many years ago on the island of Nantucket. The walls are board and batten consisting of rough sawn roof boards, with a very fine batten (narrow profile). This meant paintings and the like could be hung with ease and the batten wouldn't interfere because it wasn't too deep. The wooden crown molding above was custom designed and made on site to work well with the walls. I didn't want it to project or be too fussy like so many designs from the lumberyard can. The crown was complicated to produce and install; but worth it in the end.

The beaded board walls in the fireplace room were inspired by a couple of doors at the upper bedroom level. These were simple beaded boards put together with forged rose-head nails attached with simple beveled cleats to form a door. This beading was done with a router and a lap joint was installed to disguise any shrinkage that might occur. I sourced reproduction forged rose-head nails from Lee Valley and they were predrilled and installed.

Pine flooring was inspired by the original pine floors found in very good condition under many tiers of non-original flooring. They were matched in dimension and a simple lap joint installed to disguise shrinkage. The original floors were never sanded and thus retain their original shaping; not the usual flat as a pancake look of sanded floorboards. They were painted in a rich chocolate brown, duplicating an original colour in the house.

### **THE HOUSE SEEMS TO HAVE A MODERN TIMELESS QUALITY TO IT. HOW DID YOU ATTAIN THIS?**

I believe this quality can be attributed to a couple of simple notions. The number one quality would be paint colours. I chose a pale ivory (Farrow and Ball white tie) for the wall colour and carried that colour on all trim as well. Walls were done in a new product called Ultimatte (colour matched by Benjamin Moore), which gave a dry, white washed look, which is scrubbable. This was used on ceilings as well. The trim was done in a high gloss. The high gloss is a great product for uniting old and new wood. In the restoration process there is always a lot of old and new wood melding.

Number two quality is to rethink a traditional element in a new way. An example of this is the newel and handrail in the new section of the house. The indigenous black walnut handrail and newel were made by my cabinetmaker. He actually brought me a log in his truck showing me how it would match (colour wise) to a pair of antique French Armoire doors nearby, which act as closet doors. The shape of the handrail is based on an original feature in the house, namely a windowsill. The newel post is of classical shape, but the modern spin is a silhouette. I drew a quick sketch of the newel from our previous house and, voila, it became the template for two newels! The glass panels instead of wooden spindles added a modern element as well as allowing the ample transfer of light. The steel was ordered precut to our specifications and then welded onsite by our contractor.

Number three quality is something I never thought I'd say after struggling with the paint removal on the exterior brickwork. Paint the interior brick wall in the same Ultimatte (Farrow and Ball White Tie) colour as the wooden walls. I also kept all the original windows in their original location. One backed into the ensuite bathroom, so, I recycled a 6 over 6 storm window as a mirror. The other window below had its original glass and is simply a working window formerly outside now allowing light and air to move between the old and new house!

Number four quality is the choice of cohesive antique elements, which behave very well next to original antique features. This blurs the old/new aspect of this house.

**THANK YOU!**