Tree Cassyn

Damp. Timber. Moisture Investigations.

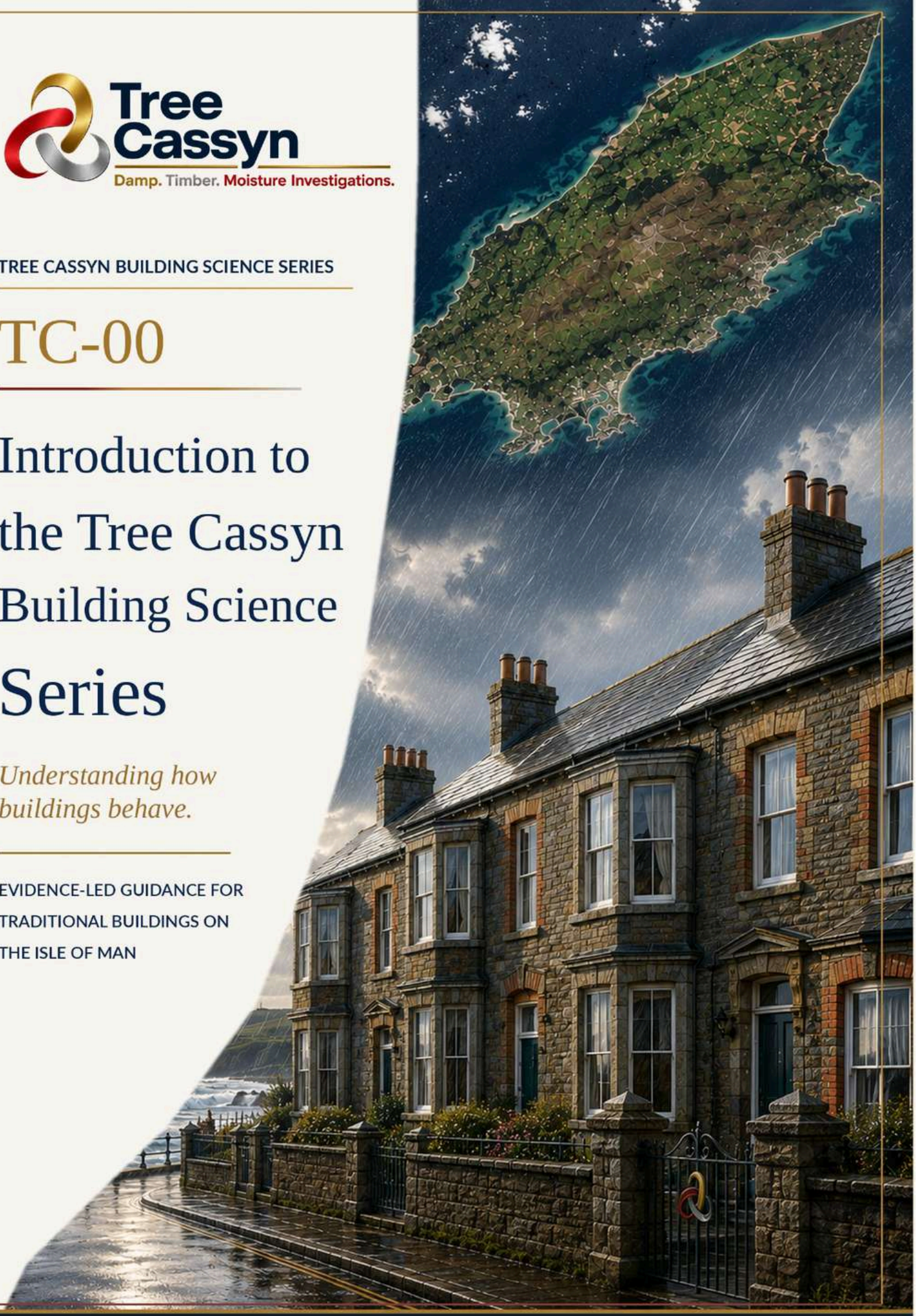
TREE CASSYN BUILDING SCIENCE SERIES

TC-00

Introduction to the Tree Cassyn Building Science Series

Understanding how buildings behave.

EVIDENCE-LED GUIDANCE FOR TRADITIONAL BUILDINGS ON THE ISLE OF MAN



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CHAPTER 1

Why We Created the Building Science Series

Tree Cassyn is an independent Isle of Man firm specialising in damp, timber and moisture investigations. Much of that work involves older and traditionally constructed buildings, but the same underlying questions arise across all sorts of properties: old and new, stone and brick, cottages and terraces, roofs, walls and floors.

A client may notice a damp patch, a cold room, mould growth, staining around a chimney breast, or timber that appears to be deteriorating. A survey may identify high moisture-meter readings, poor ventilation, thermal bridges, signs of condensation, salts, or evidence of defects to the building envelope. But identifying what is visible is not the same as explaining why it is happening.

That distinction lies at the heart of the Tree Cassyn Building Science Series.

These guides were created because the same underlying building-science questions come up repeatedly in surveys and investigations. Clients are often told that a wall is damp, a room has condensation, a timber has decay, or an insulation upgrade is needed - but not always given a clear explanation of the building science behind those conclusions. Just as importantly, they are not always helped to distinguish between a finding, a mechanism and a diagnosis.

A survey report can explain the findings at a particular property and set out the most likely diagnosis and recommendations. What it cannot always do, without becoming unmanageably long, is stop every few pages to explain capillary action, vapour diffusion, dew point, moisture redistribution, or why an older building may behave differently from a newer one.

That is why these guides exist.

The survey explains this building. The Building Science Guides explain the building science behind it.

The guides are intended to be useful to a wide audience: homeowners, buyers, landlords, occupiers, contractors, surveyors, designers and anyone with an interest in how buildings behave. Some readers will dip into a single guide because of a particular problem. Others may read several together. Either approach is fine.

What matters is that the reader comes away better able to ask the right questions.

The purpose of this Series is not to provide instant remote diagnosis from a photograph, a single meter reading, or a symptom observed in isolation. Its purpose is to help readers understand the principles that sit behind sound investigation, proportionate intervention and good long-term building care.



CHAPTER 2

Buildings Behave as Systems

One of the most common mistakes in building diagnosis is to treat each visible symptom as though it exists on its own.

A mouldy corner is considered separately from the room's heating pattern. A damp skirting is considered separately from the floor construction. A stained chimney breast is considered separately from ventilation, salts, previous alterations and rainwater exposure. A proposed insulation upgrade is considered only in terms of U-value, with little thought given to moisture behaviour elsewhere in the structure.

Real buildings do not behave like that.

A building is a system. Heat, air and moisture move through it. Materials store and release moisture. Heating patterns alter surface temperatures. Ventilation affects internal humidity. Floors, walls and roofs interact. Changing one part of the building can change conditions somewhere else.

That means apparently simple questions often have wider implications. If a wall is colder than expected, why is it colder? If mould is growing, is the main driver moisture production, ventilation, temperature, thermal bridging, intermittent heating, or some combination? If a wall is damp at low level, is the source from the ground, from internal condensation, from altered drying pathways, or from something else entirely? If insulation is added internally, what happens to the temperature and drying conditions within the existing wall?

Treat the building as a system, not a collection of isolated defects.

That does not mean every explanation is complicated. Sometimes the cause of a problem is straightforward. A broken downpipe may be causing a damp wall. A blocked airbrick may be affecting a suspended floor. A poorly ventilated bathroom may be driving local mould growth.

But even when the immediate cause is simple, the wider context still matters. The same defect can have very different consequences in different buildings depending on construction, exposure, materials and how the building is being used.

This is particularly important in older buildings, where traditional materials and details often rely upon different moisture-management patterns from those used in modern construction.

TC-01 explains the broad principles of moisture movement. TC-02 explains why buildings on the Isle of Man developed differently over time. TC-07 shows why retrofit and insulation should never be considered in isolation from the wider building.

Understanding the system does not mean overcomplicating the building. It means resisting the temptation to oversimplify it.



CHAPTER 3

Observation Is Not Diagnosis

This is one of the most important distinctions in sound building diagnosis, and a principle used throughout the Tree Cassyn Building Science Series.

A stain is an observation. A high reading on a moisture meter is a measurement. A cold surface is a finding. Mould growth is a visible manifestation. None of those things, on their own, is a diagnosis.

Diagnosis is a process of reasoning. It requires evidence to be gathered, weighed and interpreted. It often requires competing explanations to be tested against the available facts, and it may require the investigator to return for further evidence as the picture develops.

Observation -> Measurement -> Interpretation -> Diagnosis

Observation

What can be seen, smelled, touched or otherwise identified during inspection? Examples may include staining, mould, damaged finishes, decayed timber, defective rainwater goods, salt deposits, blocked ventilation openings or cracking to render.

Measurement

What can be measured or recorded usefully? This may include temperature, relative humidity, moisture-meter response, thermal imaging observations, dimensions, ventilation details, or in some cases more intrusive or specialised testing.

Interpretation

What do those observations and measurements actually mean? This is the stage at which the evidence must be considered in context. A high meter reading may indicate moisture, salts, material variation, or several things at once. A cold wall surface may matter very little in one room and much more in another.

Diagnosis

Having considered the wider evidence, what is the most likely explanation - and how confident can we reasonably be?

A good conclusion should never contain more certainty than the evidence supports.

Diagnosis is iterative - and time matters

These stages are not a rigid one-way sequence. Interpretation may call for another measurement, targeted opening-up, weather or occupancy correlation, monitoring, or reinspection. Good investigation loops back until the evidence supports a proportionate conclusion.

An inspection is also a snapshot. Weather, season, occupancy, heating, previous wetting and recent repairs can alter the evidence. Where uncertainty remains, monitoring or reinspection may be more reliable than forcing an immediate diagnosis.

This is why TC-03 - Why Is This Wall Damp? - sits near the centre of the Series. It takes the broad principles introduced elsewhere and applies them to the practical act of investigation. It reminds the reader that a damp patch is not self-explanatory, and that similar symptoms may have very different causes.

The purpose of a building investigation is not merely to describe what is visible. It is to explain it.



CHAPTER 4

Follow the Moisture

Just as the previous chapter described the process of investigation, this chapter introduces a simple way of thinking about the moisture itself.

Source -> Transport / Storage / Phase Change -> Manifestation

Source

Where did the water ultimately originate? Is it rainwater, including wind-driven rain? Ground-derived moisture? A plumbing, drainage or water-supply leak? Moisture introduced during construction or repair? Or water vapour in indoor or outdoor air?

Transport, storage and phase change

How did the moisture move, become retained or change form? It may travel as liquid water under gravity or by capillary action, or as water vapour by diffusion or with moving air. Materials may absorb, store and redistribute moisture, while evaporation, condensation and hygroscopic uptake can alter where and how water is present.

Manifestation

Where, and in what form, did it become visible or measurable? A damp patch, mould growth, staining, decayed finishes, high internal humidity, softened plaster, damp timber, condensation on a cold surface, or an elevated moisture-meter response may all be manifestations.

This matters because the visible manifestation is not necessarily close to the source, and the route from source to symptom may include periods of storage and redistribution within the building fabric.

A patch low on a wall does not prove a ground source. Mould in a corner does not prove that the corner itself is defective. A stained chimney breast does not tell us automatically whether the issue is rainwater entry, hygroscopic salts, condensation or a combination of causes. Moisture found within a wall does not tell us whether it arrived there as liquid water, as vapour carried by diffusion or air movement, or whether it was stored and later redistributed.

Following the moisture means asking each of those questions in turn, while recognising that more than one route or mechanism may operate at the same time.

This framework is particularly helpful when reading TC-04 on surface condensation and mould, TC-05 on interstitial condensation, TC-06 on low-level moisture and rising damp, and TC-07 on the consequences of altering the building through insulation and retrofit.

The visible symptom may be where the problem announces itself. It is not always where the explanation begins.



Two complementary Tree Cassyn frameworks

How we investigate, how we follow moisture - and how we verify

HOW WE INVESTIGATE & CHECK

An iterative diagnostic process

1. **OBSERVATION**
   What can we see, smell, touch or otherwise identify?
2. **MEASUREMENT**
   What can be usefully measured or recorded?
3. **INTERPRETATION**
   What does the evidence mean in context?
4. **DIAGNOSIS**
   Which explanation best fits the evidence - and with what confidence?
5. **INTERVENTION**
   What, if anything, should change?
6. **VERIFICATION**
   Did the intervention produce the intended outcome?

Loop back when evidence or outcomes require it.

HOW WE FOLLOW MOISTURE

The physical pathway

1. **SOURCE**
   Where did the water ultimately originate?
2. **TRANSPORT / STORAGE / PHASE CHANGE**
   How did it move, become retained or change form?
3. **MANIFESTATION**
   Where and how did the moisture reveal itself?

**Different sources.
Different routes and reservoirs.
Different manifestations.**

USED TOGETHER

Together they separate symptom from mechanism, test the explanation and verify the outcome.

CHAPTER 5

Understand Before Intervening

Once a problem has been observed, many readers naturally want to know what should be done about it. That is understandable. But in building science, acting too quickly can sometimes make matters worse.

An intervention based on the wrong diagnosis may fail completely. Worse, it may change the behaviour of the building in a way that creates new problems elsewhere.

Evidence before assumption; diagnosis before treatment.

Understand the mechanism, not merely the symptom

A wall may be damp for several different reasons. A room may have mould for more than one reason. A timber may be wet because of roof defects, plumbing leakage, condensation, poor ventilation or long-term trapped moisture.

Measure where measurement adds useful evidence

Measurements can strengthen an investigation, but only when they are understood properly. A reading is not a diagnosis. A number is not a mechanism. An instrument cannot explain moisture history on its own. Where conclusions depend on calculated values, modelled risk or indirect measurements, the assumptions and limitations behind them matter too. The building itself remains the final test of whether an explanation fits.

Use compatible, proportionate interventions

The right solution is not always the most invasive one. Nor is it always the least invasive one. What matters is that the intervention is proportionate to the evidence and compatible with the building.

Compatibility over ideology

Traditional materials are not automatically right merely because they are traditional. Modern materials are not automatically wrong merely because they are modern. Lime is not a cure-all. Cement is not automatically inappropriate in every circumstance. Vapour-open materials may be highly suitable in one context and less suitable in another.

What matters is compatibility: the relationship between the building, its materials, its exposure, its moisture behaviour and the intervention proposed.

That principle becomes especially important in TC-07, where questions of insulation, retrofit and energy efficiency are considered in much greater depth.

The objective should never be simply to do something. It should be to understand enough to know what, if anything, needs to change.



CHAPTER 6

What Does "Dry" Actually Mean?

When people speak about a dry building, they often mean a building with no visible signs of dampness. That is understandable, but it is not the most useful definition.

A dry building is not one that never encounters moisture. It is one that manages moisture successfully.

All buildings encounter moisture in some form. Rain falls on walls and roofs. Ground moisture exists beneath floors and beside walls. Occupants generate water vapour through breathing, cooking, washing and drying clothes. Materials absorb and release moisture. Air moves. Heat moves. Vapour moves.

Moisture itself is not unusual. What matters is the balance between wetting and drying.

A building performs successfully when moisture entering the construction can be managed without causing damage. Problems arise when the balance shifts too far towards wetting, storage or trapping, or when drying pathways are reduced or interrupted.

This idea sits behind many of the themes developed elsewhere in the Series. TC-01 explains the broad movement of moisture; TC-04 explains how surface condensation forms when humidity, temperature and time combine unfavourably; TC-05 examines moisture and condensation within the construction; TC-06 considers the diagnosis of low-level moisture; and TC-07 shows how retrofit interventions can alter the balance of wetting and drying.

This way of thinking also helps move the conversation away from unrealistic expectations. No building is perfectly isolated from moisture. The real question is whether the building is managing that moisture successfully - and if not, why not.

CHAPTER 7

Traditional Buildings Are Different - But Not Mysterious

Traditional buildings are often described as though they operate according to entirely different physics from modern buildings. That is not quite right.

The physics are the same. Heat still flows from warmer to colder areas. Water vapour can move by diffusion in response to vapour-pressure gradients, and it can also be carried with moving air through gaps and leakage paths. Liquid water still moves under gravity and capillary forces. Materials still absorb, store and release moisture.

What differs is the way the building is put together.

Traditional buildings often use thicker walls, more porous materials, lime-based mortars and plasters, and suspended timber floors. Many are less airtight than modern construction, and some roof spaces are ventilated deliberately or through incidental air leakage. These are common characteristics rather than universal rules. Many traditional assemblies also rely significantly on moisture storage, redistribution, evaporation and drying through surfaces.

Modern buildings often rely more heavily on cavities and membranes, higher levels of insulation, greater airtightness, more explicit separation of wetting and drying pathways, and systems in which moisture control is managed differently.

Neither is automatically better in every respect. They are simply different.

This matters greatly on the Isle of Man, where building history, exposure and alteration have created a particularly varied stock. Thick stone walls, Victorian terraces, later cavity construction, altered floors, changed plasters, cement renders, replacement windows, modern extensions and retrofit measures may all exist within the same street - or even within the same building.

The Manx setting matters

The Island's exposed maritime climate can produce severe wind-driven rain, so orientation and shelter can materially affect how walls wet and dry. Topography, local ground conditions and site levels also matter, particularly where older roads, pavements, yards or paths have altered the relationship between external ground and the original building. These factors are not diagnoses in themselves, but they belong in the context of a sound investigation.

That is why TC-02 - The Evolution of the Manx Home - is such an important companion to the rest of the Series. It helps explain why buildings were constructed as they were, how they later changed, and why those changes still matter to diagnosis today.

Traditional buildings are not mysterious. But they do need to be understood on their own terms.



CHAPTER 8

How to Use the Building Science Series

The Tree Cassyn Building Science Series is intended to work as a connected body of guidance rather than as a set of isolated booklets.

A reader may begin with one guide because of a particular problem, but often the most useful understanding comes from reading connected guides together.

Where should I start?

Guide	What it helps you understand
TC-01 - Understanding Moisture Movement in Traditional Buildings	How moisture moves through buildings and how traditional construction stores, redistributes and dries moisture.
TC-02 - Evolution of the Manx Home	How Manx buildings developed over time, why construction varies, and why that history matters to diagnosis today.
TC-03 - Why Is This Wall Damp?	How to move from a visible damp symptom to a reasoned, evidence-led diagnosis.
TC-04 - Understanding Surface Condensation and Mould	Surface condensation, mould, humidity, dew point, cold surfaces and the interaction between heating and ventilation.
TC-05 - Understanding Interstitial Condensation	Moisture and condensation within walls, roofs and floors, and why hidden moisture mechanisms must be tested rather than assumed.
TC-06 - Rising Damp in Traditional Buildings	Low-level dampness, capillary rise, differential diagnosis and why a moisture profile is a finding rather than a diagnosis.
TC-07 - Energy Efficiency and Retrofit Insulation	Insulation, energy efficiency and moisture-safe retrofit considered as whole-building interventions.

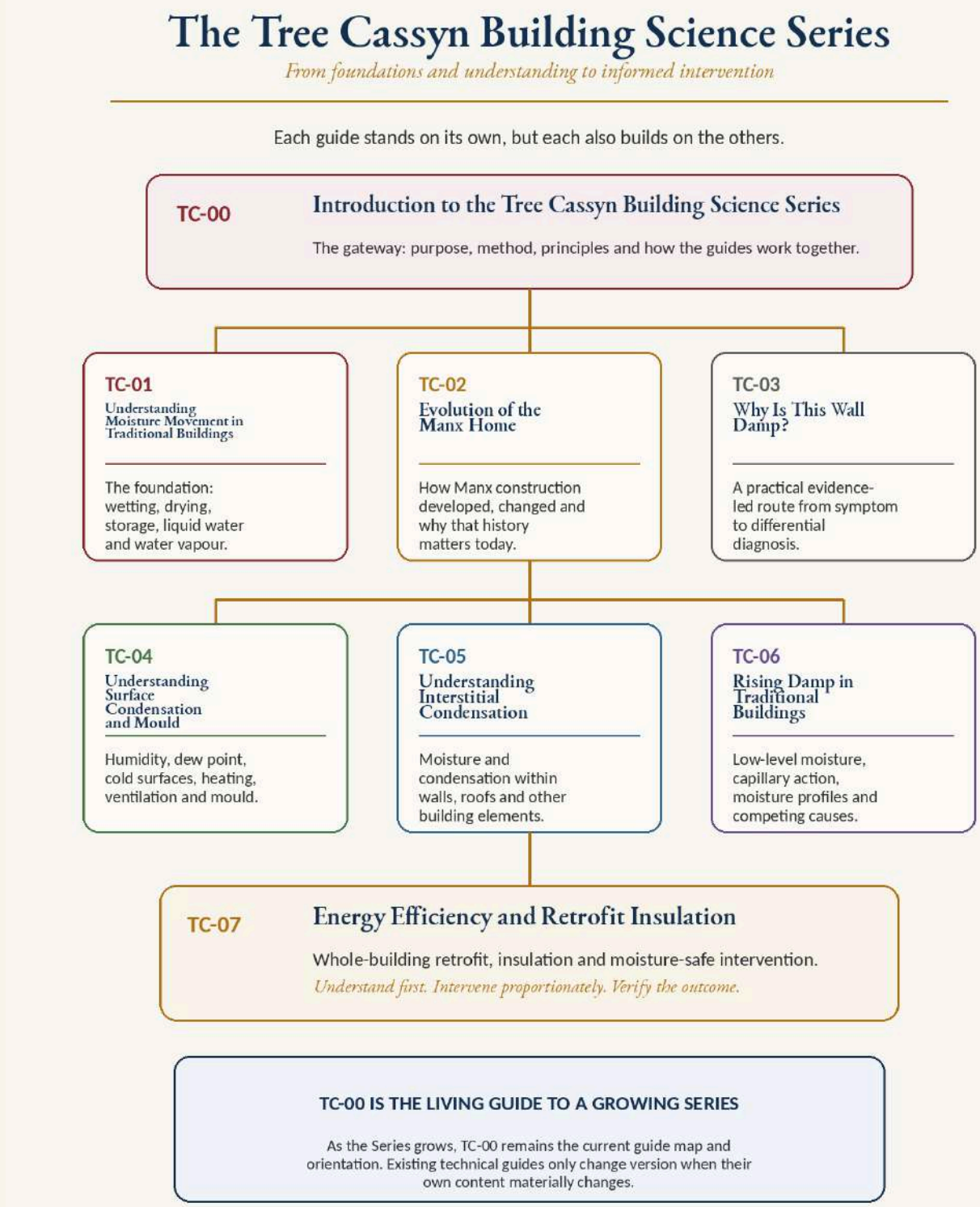
The Guides Are Intended to Be Read Together

The Series also has an internal logic. TC-01 provides much of the moisture foundation. TC-02 explains the buildings themselves. TC-03 explains how investigation should work. TC-04, TC-05 and TC-06 each examine particular moisture problems or mechanisms in greater detail. TC-07 draws heavily on all of that earlier science and applies it to intervention and retrofit.

A reader concerned about mould may begin with TC-04, but understanding why a particular wall is cold may also require TC-01 or TC-02. A reader considering insulation may begin with TC-07, but will often benefit from TC-01, TC-04 and TC-05. A reader facing low-level dampness may begin with TC-06, while TC-03 explains the wider diagnostic process and TC-02 may help explain the relevant wall and floor construction.

The guides are therefore intended to be read individually where useful, but together where necessary.





A living guide to a growing Series



TC-00 is the living gateway to the Series.

As further guides are published, the technical guides already in the Series do not need to be republished simply to maintain a complete catalogue. Instead, TC-00 will be updated so that it remains the current guide map, orientation and introduction to the whole Series.

This also allows each technical guide to keep its own publication history. A new guide may cause TC-00 to move to a later version, while an existing guide only needs a new version when its own content has materially changed.

Version control and publication history

Every guide carries its own edition, year and version number. A guide should move to a later version when its own content changes materially; TC-00 may move to a later version simply because the Series map, orientation or overarching methodology has been updated. This keeps the technical publication history of each guide clear.



CHAPTER 9

What These Guides Can - and Cannot - Do

The Tree Cassyn Building Science Guides are intended to help readers understand buildings better. They can explain moisture behaviour, common mechanisms, diagnostic reasoning, construction history, and the wider implications of different kinds of intervention.

What they cannot do is diagnose an individual building at a distance.

Two properties may display very similar staining and have entirely different causes. One building may contain several moisture mechanisms at the same time. A single observation may be compatible with more than one explanation. A high moisture-meter response does not by itself identify the water source or history.

For that reason, these guides should not be used as substitutes for a properly evidenced investigation where a specific building problem needs to be diagnosed.

Their purpose is different. They are intended to improve understanding, sharpen the questions we ask, reduce over-simplified assumptions, support better communication between clients and professionals, and help readers approach building problems with a more evidence-led mindset.

They are also intended to support Tree Cassyn survey work in a practical way. A survey may cross-reference a client to one or more guides where fuller background explanation would be useful. In that sense, the guides and the surveys are complementary.

> **These guides can explain principles. They cannot replace evidence from the building in front of you.**

That is not a weakness. It is part of the honesty of the Series.



CHAPTER 10

A Tree Cassyn Approach to Building Science

By this point, a number of recurring principles will probably already be clear. This final chapter brings them together in one place.

These principles are not unique to Tree Cassyn. They draw upon established building-pathology, conservation and moisture-investigation practice. Taken together, however, they describe the approach adopted throughout this Series and in Tree Cassyn investigations.

Observation -> Measurement -> Interpretation -> Diagnosis -> Intervention -> Verification

Tree Cassyn principle	What it means in practice
1. Understand before intervening	The first remedy considered should not necessarily be the first remedy applied. Building problems are better solved when the mechanism is understood first.
2. Evidence before assumption; diagnosis before treatment	Visible symptoms are not enough on their own. Conclusions should reflect the strength of the evidence.
3. Observation is not diagnosis	A damp patch, a stain, a mouldy corner or a high reading are starting points for investigation, not conclusions.
4. Follow source, transport / storage / phase change and manifestation	Where did it originate? How did it move, become stored or change form? Why is it evident here?
5. Treat the building as a system	Heat, air and moisture interact. Floors, walls, roofs, ventilation and occupancy patterns interact. Changing one part of a building can alter conditions elsewhere.
6. Measure where possible - and understand what the measurement means	Instruments, calculations and models are useful servants but poor masters. Their limitations and assumptions matter, and a result adds value only when it is interpreted against the real building.
7. Allow time and monitoring where necessary	An inspection is a snapshot. Changing weather or use may mean unresolved cases need monitoring or reinspection.
8. Choose compatible, proportionate interventions	Compatibility matters more than ideology. Traditional and modern materials should be judged by how they behave in the real building, not by slogans.
9. Verify that the intervention worked	Check the outcome rather than assuming success; loop back to investigation if the building does not respond as expected.

Taken together, these principles express what Tree Cassyn is trying to do through the Building Science Series. The sequence is not always one-way: new evidence, an unexpected response to repair or a changing pattern over time may require the investigation to loop back and test the explanation again.

The objective is not to make every old building behave like a new one. Nor is it to romanticise older construction or reject modern methods automatically.

The objective is to understand the building well enough to help it perform successfully.

That is a more demanding approach than simply naming a defect and prescribing a familiar treatment. But it is also a more honest and often a more useful one.



Closing Thoughts

Many avoidable building problems arise not from a lack of available treatments or products, but because the mechanism was misunderstood, the evidence was incomplete, or an intervention changed the building in a way that had not been fully anticipated.

That is why this Series exists.

The Tree Cassyn Building Science Guides are not intended to be a catalogue of defects and remedies. They are intended to help readers understand how buildings behave, how moisture moves, how diagnosis should work, and why proportionate intervention depends upon asking the right questions first.

Some readers may turn directly to the guide that most obviously matches the symptom in front of them. Others may start with the broader foundation guides and work forwards. Either approach is perfectly valid.

What matters is that the building is understood better at the end than it was at the beginning.

Understand the building. Understand the moisture. Then decide what - if anything - needs to change.



Glossary of Key Terms

Absolute humidity (AH) - A measure of the amount of water vapour present in a given volume of air, often expressed in grams per cubic metre.

Capillary action - The movement of liquid water through small pores or sufficiently connected capillary pathways within materials.

Compatibility - The suitability of a material, system or intervention for a particular building, taking account of moisture behaviour, thermal behaviour, construction type, durability and long-term performance.

Diagnosis - A reasoned conclusion about the most likely cause or mechanism of a building problem, based on evidence and interpretation.

Damp-proof course (DPC) - A layer or system within a wall intended to restrict the upward movement of ground-derived liquid moisture.

Damp-proof membrane (DPM) - A membrane, commonly beneath or within a floor, intended to restrict moisture transfer from the ground into the building fabric.

Dew point - The temperature at which air of a given water-vapour content becomes saturated as it cools; if a surface or part of the construction falls to or below this temperature, condensation may occur.

Hygroscopic - Describes a material or substance that can take up water vapour from the surrounding air. Some salts are strongly hygroscopic and can keep a surface measurably or visibly damp at sufficiently high relative humidity.

Interstitial condensation - Condensation occurring within a building element or construction rather than on its visible surface.

Manifestation - The way moisture becomes visible or measurable - for example as staining, mould growth, deterioration or an elevated moisture-meter response.

Moisture-meter response - An instrument response influenced by the material being tested and, depending on the instrument, by factors including moisture, soluble salts, density and surface condition. A response is evidence to interpret, not a diagnosis by itself.

Observation - A visible or otherwise detectable finding identified during inspection.

Phase change - A change in the physical state of water, such as evaporation from liquid to vapour or condensation from vapour to liquid.

Relative humidity (RH) - A percentage describing how close air is to saturation at its current temperature. RH can change as temperature changes even when no moisture has been added or removed.

Source - The ultimate origin of the water being investigated, such as rain, ground moisture, leakage, construction moisture or water vapour in the air.

Thermal bridge - A part of the construction where heat flows more readily, often causing reduced surface temperatures.

Transport - The route or mechanism by which moisture moves, including liquid flow, gravity, capillary action, vapour diffusion and carriage with moving air.

Traditional building - A building whose construction and material behaviour rely materially on traditional forms or assemblies - often including solid walls, lime-based materials and drying through permeable surfaces.

Vapour pressure - The partial pressure exerted by water vapour in air. Differences in vapour pressure can drive water-vapour diffusion through materials and assemblies.

Vapour-open - A comparative description of a material or layer that offers relatively low resistance to water-vapour diffusion.



Further Reading & Sources

TC-00 is an introduction to the principles that run through the Tree Cassyn Building Science Series. Detailed technical references are provided within the individual guides. The sources below provide a concise route into the professional guidance and standards that most directly inform the Series approach.

Jurisdiction and use of UK guidance

UK research, British Standards and heritage guidance are used extensively where the underlying building physics and construction are relevant. However, UK legislation and Approved Documents do not automatically apply in the Isle of Man. Where a statutory or regulatory requirement is material, the current Manx legal and Building Control position should be checked separately.

Tree Cassyn Building Science Series

TC-01 - Understanding Moisture Movement in Traditional Buildings. The foundation guide to wetting, drying, liquid water, water vapour and moisture storage in traditional construction.

TC-02 - The Evolution of the Manx Home. Construction history and the changing forms of Manx housing.

TC-03 - Why Is This Wall Damp? The practical diagnostic process from symptom to cause.

TC-04 - Understanding Surface Condensation and Mould. Humidity, dew point, surface temperatures, condensation and mould.

TC-05 - Understanding Interstitial Condensation. Moisture and condensation within the building fabric.

TC-06 - Rising Damp in Traditional Buildings. Low-level moisture, capillary action and differential diagnosis.

TC-07 - Energy Efficiency and Retrofit Insulation. Whole-building retrofit, insulation and moisture-safe intervention.

Professional guidance behind the approach

RICS / Historic England / Property Care Association - Investigation of moisture and its effects on traditional buildings: Principles and competencies. Joint Position Statement, first edition, September 2022.

British Standards Institution - BS 5250:2021, Management of moisture in buildings - Code of practice. An integrated, whole-building approach to moisture sources, transport, deposition and risk management across design, construction and operation.

British Standards Institution - BS 7913:2013, Guide to the conservation of historic buildings. Best-practice principles for informed judgement, management, maintenance, repair and conservation of historic building fabric.

Historic England - Assessing Damp in Historic Buildings: A Practical Guide to Investigation and Diagnosis (HEAG311, 2026).

Historic England - Energy Efficiency and Retrofit in Historic Buildings. Current guidance on the whole-building implications of energy-efficiency interventions in historic and traditionally constructed buildings.

Society for the Protection of Ancient Buildings (SPAB) - technical guidance and building-performance research relating to traditional construction, moisture and repair.

The individual guides contain the more detailed research, standards and source material relevant to their particular subjects.



About the Tree Cassyn Building Science Series

The Tree Cassyn Building Science Series provides practical, evidence-led guidance on the behaviour, maintenance and repair of traditional buildings on the Isle of Man.

Tree Cassyn is an independent Isle of Man firm specialising in damp, timber and moisture investigations, using a diagnostic, evidence-led approach informed by established professional guidance and relevant British Standards.

Each guide introduces one aspect of building performance in accessible terms, drawing upon the recurring construction details and moisture patterns encountered during Tree Cassyn investigations.

IMPORTANT NOTE

This publication provides general educational guidance. Traditional buildings vary considerably, and similar-looking symptoms may arise from different causes. Repairs should be based upon an investigation of the individual building rather than upon general descriptions alone.

TREE CASSYN

DAMP · TIMBER · MOISTURE INVESTIGATIONS

ISLE OF MAN

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