

WORKING PAPER

SCIENTIFIC ESSAY · READER EDITION

BRC-2026-E102 Published 2026-08-15

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Can We Overlay the Back-Shu Map on Heat Felt in the Back?

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Article type	Submitted	Published	Persistent ID
Perspective	2026-08-15	2026-08-15	BRC-2026-E102
Last updated	Review status	License	Correspondence
2026-08-15	Awaiting public assessment	Creative Commons Attribution 4.0 International	Baekrokdam Research Commons (BRC)

Canonical URL <https://research.baekrokdam.com/en/articles/do-back-shu-points-map-back-heat>

Suggested citation Choe Y, Baekrokdam Research Commons (BRC). Can We Overlay the Back-Shu Map on Heat Felt in the Back?. Baekrokdam Research Commons. 2026; BRC-2026-E102.

This is a reader edition of the research.

It reorganizes completed research so readers can follow the question and inquiry without changing its evidence or limits. The four source papers remain independently accessible and citable in the research lineage below.

Abstract

What would appear if a Back-Shu map were overlaid on the body of someone who feels heat in the back? The concepts share a region, and classical medicine discusses viscera and heat together. Yet the Donguibogam sentence on back heat contains no acupoint, while the Lingshu chapter on Back-Shu points contains no heat sensation. The Suwen does connect heat with the vicinity of visceral Shu points, but in the treatment architecture of heat illness, not spontaneous back heat. Modern studies have measured temperature and tissue differences at some Back-Shu sites, but have not studied people recruited for back heat. This essay treats the mismatch not as failure but as a blueprint: map the felt location first, measure thermography during an episode, and only then overlay a blinded point grid and compare point centres with adjacent and mirrored skin. A historically plausible connection exists. Whether Back-Shu points cause, diagnose, or treat back heat remains a question before experiment, not a conclusion after it.

Keywords: scientific essay · Back-Shu points · heat on the back · thermography · acupoint specificity · Huangdi Neijing

Two maps lay across the same back

The first map is drawn in a person's own words: "between my shoulder blades heats up," "one side of my lower back feels hot inside," or "heat rises over my whole back at night." Its border may be diffuse or narrow enough to point to with one finger. The second map is the Back-Shu system: sites named Feishu, Xinshu, Ganshu, Pishu, and Shenshu run at different levels beside the spine. Two maps on the same back seem destined to overlap.

A further intuition strengthens the link. Traditional medicine related heat to viscera, and Back-Shu points carry visceral names. Could back heat therefore be a signal appearing at the corresponding Shu point? The question is reasonable. A reasonable question, however, is not an established relation. We began by tracing when and for what observations each map had been made ^[1].

The Donguibogam's back heat had no point name

The "Back" section of the Donguibogam records cold and heat on the back separately. Under back heat is a short sentence sourced to the Yixue Rumen: "Heat on the back belongs to the lung. Because the lung resides in the upper burner, heat responds at the back." It clearly places the back within a lung–upper-burner explanation. It contains no Feishu, no response to pressure, and no acupuncture or moxibustion ^[1,2].

To jump from this sentence to "therefore Feishu diagnoses back heat" requires three bridges absent from the text: lung to back, lung to Feishu, and Feishu to localized heat. The sentence demonstrates the historical existence of the first bridge, not completion of the other two. Leaving the gaps visible was the first way to respect the source.

Source passage

Donguibogam, "Heat on the Back" in the "Back" section

1613 textual lineage; public Mediclassics edition; marked as a quotation from the Yixue Rumen

背熱屬肺肺居上焦故熱應於背[入門]

BRC translation. Heat on the back belongs to the lung. Because the lung resides in the upper burner, heat manifests at the back.

How we read this passage. We read this as placing back heat in a lung–upper-burner explanatory network. We did not read it as establishing Feishu, needling, skin temperature, or a modern pulmonary diagnosis.

The Lingshu found Back-Shu by location and touch, not heat

The second source, the Lingshu chapter “Back-Shu,” offered a different kind of map. It arranged lung, heart, diaphragm, liver, spleen, and kidney Shu sites by vertebral level, described how to measure the back, and instructed the examiner to identify the place where pressure evokes an internal response and relieves pain. Its readings are vertebral location and palpatory response. Skin warmth and spontaneous heat are not among its observations ^[3].

Back-Shu is also not one point but a series spanning upper thorax to lumbar back. If the point map is shown before the felt area is drawn, almost anywhere on the back will lie near something. Such agreement may be inevitable overlap on a crowded map rather than discovery. Unless vertebral level, distance from the midline, and laterality are recorded first, the hypothesis loses its opportunity to be wrong.

Source passage

Huangdi Neijing Lingshu, “Back-Shu”

Chinese Text Project public transcription, “Back-Shu”

背中大膂，在杼骨之端，肺膂在三焦之間，心膂在五焦之間，膈膂在七焦之間，肝膂在九焦之間，脾膂在十一焦之間，腎膂在十四焦之間。

BRC translation. The great Shu points of the back are located with reference to the end of the zhu bone: Lung-Shu lies at the third interval, Heart-Shu at the fifth, Diaphragm-Shu at the seventh, Liver-Shu at the ninth, Spleen-Shu at the eleventh, and Kidney-Shu at the fourteenth.

How we read this passage. We read this as a vertebally distributed series rather than one point. The passage does not describe spontaneous back heat or skin-temperature observation.

The closest bridge lay beside the Back-Shu points

In the third source, the Suwen chapter “Discourse on Water and Heat Points,” heat and the vicinity of visceral Shu points finally enter one sentence. Within a system of fifty-nine points for heat illness, it states that five points beside the visceral Shu points—ten bilaterally—drain heat from the viscera. Later commentary identifies Pohu, Shentang, Hunmen, Yishe, and Zhishi. The vicinity of Back-Shu points genuinely appears in the history of needling for heat ^[4].

Closer reading made the connection more precise but narrower. Heat is not defined as spontaneous localized warmth on the back. The passage distributes heat of the head, chest, stomach, limbs, and viscera within a treatment architecture for febrile illness. The named sites are also beside the visceral

Shu points, not the Shu points themselves. We had found a historical bridge, but it did not stand where intuition first placed it.

Source passage

Huangdi Neijing Suwen, “Discourse on Water and Heat Points”

Chinese Text Project public transcription, “Discourse on Water and Heat Points”

五藏俞傍五此十者，以寫五藏之熱也。

BRC translation. The five points beside the visceral Shu points—ten in all on the two sides—are used to drain heat from the five viscera.

How we read this passage. We read this as a historical connection between a heat-needling system and the vicinity of visceral Shu points—not as evidence for subjective back heat, temperature at the Shu points themselves, diagnostic accuracy, or treatment effect.

A camera could measure point temperature; the question was what to compare it with

An infrared camera seemed capable of resolving an old question immediately. EunMee Yang and colleagues screened 1,771 records on acupoint skin temperature and health, including ten studies in a systematic review. Several reported point-temperature differences between clinical and healthy groups or across changing states. Yet conditions, points, and imaging methods varied. Methodological problems and heterogeneity prevented a definitive conclusion that acupoint temperature indicates pathology ^[5].

A number at one point says less than it seems. If neighbouring skin at the same level is equally warm, the observation is not point-specific. Room temperature, acclimatization, camera geometry, region size, bilateral comparison, and chance arising from multiple point tests must be prespecified. Above all, camera temperature and felt heat need separate, simultaneous records. A more precise instrument demanded a stricter question.

Differences appeared at Back-Shu sites, but back heat was not the subject

In 2024, Xiao Yuan and colleagues imaged 50 people with lumbar-disc-herniation low-back pain and 45 healthy controls. The patient group showed greater bilateral temperature asymmetry, with affected-side BL23 and BL25 warmer than the opposite side. It is notable that temperature differences can be

observed at Back-Shu sites. Participants, however, were recruited by pain and imaging, not back heat, and felt heat was not measured. The public abstract cannot tell whether the difference survives comparison with non-point skin at the same level ^[6].

That year, Heeyoung Moon and colleagues compared tone, stiffness, and pressure sensitivity at five Back-Shu sites in 48 healthy adults. BL23 was less stiff yet more pressure-sensitive than other sites. The authors emphasized regional anatomy, not visceral state, as an explanation. Although temperature was not measured, the study left a deeper warning: a difference found “at a point” does not by itself show that the point reflects its named organ ^[7].

A plausible mechanism explains; it does not adjudicate

Modern accounts of Back-Shu relations propose somato-visceral reflexes, spinal segments, and autonomic modulation. Interactions between sensory input from dorsal skin and muscle and visceral function through spinal and sympathetic pathways are physiologically researchable ^[8,9]. But the existence of a possible route is different from showing that this route caused a particular person’s heat sensation.

Broad clinical use has the same limitation. An analysis of 421 clinical studies shows the conditions and combinations for which Back-Shu and Front-Mu points have been selected. It is evidence about the size and pattern of a research tradition, not diagnostic accuracy or treatment effect for back heat ^[10]. Maps, mechanisms, and usage each merit study, but none can conclude for the others.

A fair sequence for overlaying the two maps

The experimental order now becomes clear. Before any point diagram is shown, participants mark the felt area on a body map in their own words, recording level, side, border, perceived depth, intensity, and time. If possible, thermography is repeated in a standardized environment while the episode unfolds. The same procedure is repeated on a symptom-free day. Only then can we ask whether maps of sensation and surface temperature move together within the same person ^[1].

Next, an analyst blinded to participant information and symptom maps overlays standardized Back-Shu coordinates. Point centres are compared not only with each other but with surrounding annular skin, non-point regions at the same level, and mirrored contralateral sites. The primary question is not visceral diagnosis. It is whether felt areas coincide with specific Back-Shu sites more often than chance and whether that relation recurs within the same person. No signal weakens the hypothesis. A signal still requires replication in an independent sample.

A study that finds a map is still one step short of needling

Even demonstrated spatial concordance would not show that Back-Shu treatment works. Observation can establish relations of place and time. Treatment effects require a separate randomized comparison with prespecified outcomes. Needling near thoracic Back-Shu sites also carries pleural and

pneumothorax risk depending on depth and direction; bilateral pneumothorax has been reported ^[11]. An intriguing map is not permission to bypass safety.

If heat is accompanied by new weakness, expanding sensory loss, gait or bladder–bowel change, fever, or systemic deterioration, individual clinical assessment takes priority over research classification. This essay proposes a research question about symptoms and locations; it neither diagnoses an individual cause nor recommends self-needling.

What remains is not a grander story but a more exact overlap

Some ideas grew stronger. Back heat and Back-Shu points have a historical proximity worth studying, and modern tools can measure spatial and temporal relations between their maps. Other ideas weakened. The Donguibogam’s lung explanation does not directly connect Feishu with back heat; a temperature difference at a point is not automatically a visceral signal; and one thermographic image cannot reveal cause or treatment site ^[1, 5, 6, 7].

The unknown remains central. Does felt heat cluster at particular Back-Shu sites? Does it coincide with surface-temperature change? Does the same location recur within a person? Is any signal stronger at the point centre than around it? Until these questions are answered, Back-Shu points cannot be called causes, diagnostic sites, or treatment sites for back heat. We do, however, know more clearly where and how to look. The old maps did not merge into one; they became coordinate systems with which each can test the other.

Declarations

Author contributions (CRediT)	Yeonseung Choe: Conceptualization, Clinical framing, Writing – original draft, Research-system design · Baekrokdam Research Commons (BRC): Investigation, Source criticism, Data curation, Evidence verification
Data availability	This essay derives from the public evidence map BRC-2026-W105. The source study and passage-verified ledger remain independently accessible and citable through research search.
Funding	No external funding.
Competing interests	The authors and publisher share research infrastructure with Baekrokdam Korean Medicine Clinic. This relationship is not evidence for a diagnosis or treatment effect.
AI use disclosure	AI tools assisted query expansion, structuring, bilingual drafting, and reader-edition transformation. Narrative order was reconstructed, but passages, numbers, claim strength, and limitations were rechecked against the evidence map and public ledger. No people or findings were invented.
Ethics	Only public literature was used; no individual patient data or fictional case is included. This is not a guide to self-diagnosis or self-needling.

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