

Denim Production
in Türkiye:

**FROM
WORKERS'
WEAR TO
WORKERS'
HARM**

JUST FASHION 



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ABSTRACT

Do you own a pair of denim jeans, or know someone who does?

Denim is one of the most widely worn garments in the world today. Yet behind this everyday familiarity lies a production system shaped by hidden labour costs, exploitation, environmental damage and global inequalities. This report investigates denim production not only as a matter of textile manufacturing, but as an intensified form of contemporary capitalist production. Tracing the transformation of jeans from durable workwear in the nineteenth century to global fast fashion commodity, its story reveals how functionality has been replaced by aesthetics, and how labour has become increasingly invisible in the production regime.

Türkiye occupies a unique and central position in this story. As one of the world's leading denim producers, it forms a critical link in the supply chains of global brands.

Based on a combination of desk research and fieldwork, the research resulted in two complementary reports. This report at hand focuses on the historical and social dimensions of denim production with a particular focus on Türkiye, while [the other report "Denim Production in Türkiye: Sustainability in Practice?"](#) presents findings from field research, particularly concerning social and ecological sustainability practices, workers' health and blind spots. By combining desk and field research, the report examines how denim production operates across different levels of the supply chain, using a multi-stakeholder approach that spans certification programmes, large-scale factories, small workshops, and workers' lived experiences.

The findings reveal how the multi-layered and largely invisible structure of the supply chain disperses and obscures responsibility. The shrinking sector, barriers to unionisation, the precarious position of labor, and how cost pressures are passed down to the lowest levels of the chain are interlinked components of this picture. The report highlights that sustainability cannot be confined predominantly to environmental indicators – labour justice and climate justice are inseparable.



A large background image of denim fabric. At the bottom right, there is a black banner with the text "JUST FASHION" in white, bold, sans-serif font, followed by a white fist icon.

TIMELINE

INTERNATIONAL

The first modern cotton denim fabric is believed to have its origins in Nîmes, France. However, the precise origins of the textile remain ambiguous.

The patenting of riveted denim trousers by Levi Strauss and Jacob Davis responds directly to workers' needs.



James Dean wears denim jeans in the movie "Rebel without a Cause", accelerating global popularisation¹.

Jeans are adopted by youth cultures in the United States and later Europe, first as a statement associated with rebellion, nonconformity, and resistance to bourgeois norms. From here the cultural reframing of denim as fashionable garment, increasingly removed from its origins of being associated with physical labour, takes shape.



Denim has become a global phenomenon. Production expanded far beyond its former centre of the USA, following the broader dynamics of globalised capitalism: outsourcing, labour cost minimisation, and the fragmentation of supply chains.



As a result of the international campaign "Killer Jeans"⁴, over 100 global brands ban sandblasting from their supply chains.

The distressing of denim continues to be done with harmful practices, such as stone washing and Potassium Permanganate spray (PP).⁵

17th century

1873

1955

from 1950 s onward

1980's

1990's

9 June 2008

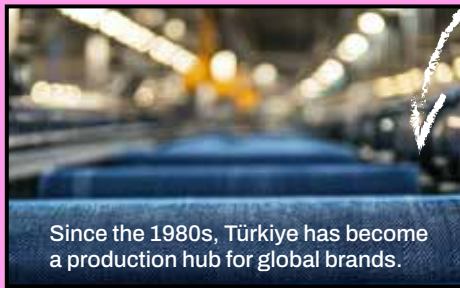
2009

2010 onwards

2011

Now

TÜRKIYE



Since the 1980s, Türkiye has become a production hub for global brands.

Denim sandblasting has become a widely used method in Türkiye, causing workers deadly silicosis.

Sandblasting workers in Türkiye set up a committee: Kot Kuşlama İşçileri Dayanışma Komitesi (Solidarity Committee of Sandblasting Workers) to fight for the ban of sandblasting in Türkiye as well as compensation due to their occupational illness, silicosis.³

Sandblasting gets banned in Türkiye

Silicosis is recognised as an occupational disease in the textile sector in Türkiye.

At least 146 workers are known to have died as a consequence of former Sandblasting practices in Türkiye.

¹ Lauren Cochran and Helen Seamons, "James Dean: An Enduring Influence on Modern Fashion," The Guardian, 2014, accessed April 2, 2026, <https://www.theguardian.com/fashion/fashion-blog/2014/apr/18/james-dean-an-enduring-influence-on-modern-fashion>

² This topic is examined in more detail in the report: Denim Production in Türkiye: Sustainability in Practice? Between Codes of Conduct and Production Reality

³ Kot Kuşlama İşçileri Dayanışma Komitesi, accessed April 6, 2026, <http://kotiscileri.org/kategori/english/>.

⁴ Clean Clothes Campaign, "Killer Jeans: A Manifesto to End Sandblasting," 2010, accessed April 6, 2026, <https://cleanclothes.org/news/2010/killer-jeans-manifesto-to-end-sandblasting>.

⁵ This topic is examined in more detail in the report: Denim Production in Türkiye: Sustainability in Practice? Between Codes of Conduct and Production Reality see also: Temiz Giysi Kampanyası, "Potassium Permanganate Spray Report," 2019, accessed February 19, 2026, <https://www.temizgiysi.org/wp-content/uploads/2019/07/Clean-Clothes-Campaign-Turkey-Potassium-Permanganate-Spray-Report.pdf>.

1.

A short introduction into Denim Jeans and their distressing global history

Denim jeans are among the most globally ubiquitous garments of modern life. Surveys suggest that people wear jeans on average three and a half days per week⁶, signaling denim's extraordinary reach across social and geographic contexts. Worn in factories and offices, on construction sites and university campuses, jeans circulate across vastly different environments with remarkable ease. Yet despite this omnipresence, the labour and environmental consequences of contemporary denim production remain insufficiently questioned. Deeply embedded in everyday life, denim has become inseparable from fast fashion and hyper-capitalist production dynamics.

Despite this, denim is rarely questioned and historicised beyond a simplified narrative: invented as durable workwear for nineteenth-century miners in the United

States, later adopted by youth cultures and eventually transformed into a global fashion staple. This storyline obscures the complex social, economic, and political forces that enabled denim's transformation and masks its entanglement with capitalist development.

The following section approaches denim not merely as a garment, but as a material and symbolic artefact of modern capitalism. It traces its international history from functional workers' clothing to fast-fashion commodity, highlighting the contradictions embedded in this evolution: durability versus disposability, uniformity versus individualisation, democratisation versus differentiation.

1.1. Denim & Industrial Capitalism

Denim's emergence is inseparable from nineteenth-century industrial capitalism. The strong cotton twill fabric, typically dyed with indigo, was valued for its durability under conditions of mining, railway construction, agriculture, and factory labour. Clothing functioned as bodily protection; stiffness, thickness, and resistance to wear were practical necessities rather than aesthetic qualities.



⁶ Miller, Daniel, and Sophie Woodward, eds. *Global Denim*. Oxford: Berg Publishers, 2010. p. 6.



17th century

The first modern cotton denim fabric is believed to have its origins in Nimes, France. However, the precise origins of the textile remain ambiguous.



18th century



19th century

Denim emerged in the 19th century with industrialization, valued for its durability in heavy labor (mining, railways, agriculture, factories).



According to several sources, the first modern cotton denim fabric is believed to have emerged in the late seventeenth century in Nîmes, France, from which its name is thought to arrive⁷. This textile, as well as other similarly durable fabrics, were favoured by members of the working class for its strength and longevity. However, the precise origins of the textile remain ambiguous⁸. The patenting of riveted denim trousers in 1873 by Levi Strauss and Jacob Davis responded directly to workers' needs, addressing garments that frequently tore under harsh conditions⁹. Denim was not fashionable but functional. Its value layed in longevity, and its meaning was tightly bound to labour, endurance, and physical exertion. It also reflected social hierarchy: denim clothed bodies understood primarily as instruments of production rather than symbols of status.

1.2. Denim & Cultural Transformation

The twentieth century marked a gradual but profound shift in the cultural meaning of jeans. As industrial economies expanded and consumer capitalism took hold, denim moved beyond the workplace. In the mid-twentieth century, jeans were adopted by youth cultures in the United States and later Europe, becoming associated with rebellion, nonconformity, and resistance to bourgeois

norms, famously worn by actors such as James Dean and Marlon Brando¹⁰. This transformation did not occur outside capitalist modernity but within it. Jeans became symbols of change precisely because a working-class garment was reworked into a marker of cultural distinction. Wearing jeans allowed consumers to gesture toward authenticity or toughness even as they became increasingly removed from physical labour itself. Jeans expressed social change in ways few other garments achieved, embodying tensions between conformity and difference, and between mass production and personal expression¹¹.

1.3. Denim & (In-)Equality

By the late twentieth century, denim had become a global phenomenon. Production expanded far beyond its former centre of the USA, following the broader dynamics of globalised capitalism: outsourcing, labour cost minimisation, and the fragmentation of supply chains. Jeans were increasingly manufactured in the Global South, while design, branding, and profit accumulation remained concentrated in the Global North.

Jeans might be considered as clothing for “everyone” – classless, gender-neutral, universally accessible. While widely worn across social strata, this apparent



⁷ "Jeans," in Encyclopedia of Consumer Culture, ed. Dale Southerton, vol. 3 (Thousand Oaks: SAGE Publications, 2011), 825–826, <https://doi.org/10.4135/9781412994248.n305>.

⁸ Rachel L. Snyder, *Fugitive Denim: A Moving Story of People and Pants in the Borderless World of Global Trade* (New York: W.W. Norton & Company, 2009), 138.

⁹ Levi Strauss & Co., "The History of Denim," *Unzipped* (blog), accessed February 18, 2026, <https://www.levistrauss.com/2019/07/04/the-history-of-denim/>.

¹⁰ Hegarty, "How Jeans Conquered the World."

¹¹ Miller and Woodward, *Global Denim*, 129.



1873



The patenting of riveted denim trousers by Levi Strauss and Jacob Davis responded directly to workers' needs.

19th century



20th century



In the 20th century, jeans shifted from workwear to a symbol of youth rebellion and identity, blending mass culture with personal expression.



egalitarianism conceals deep inequalities¹². The price spectrum ranges from a few euros to several hundred, allowing denim to maintain its role as a marker of distinction through branding, cut, wash, and origin. Denim therefore does not abolish hierarchy; it reconfigures it.

Regardless of price, purchasing a pair of jeans is systematically linked to low wages, precarious working conditions, and environmental degradation in manufacturing regions. Denim's global reach remains inseparable from global inequality.

1.4. Denim & the Logic of Fast Fashion

One of denim's most distinctive contemporary features, emerging strongly from the 1970s onward, is distressing. Rips, fades, abrasions, and washes simulate wear and tear that historically resulted from prolonged use and embodied time. Distress once told a story of work done, bodies moving, and garments ageing alongside their wearers.

In contemporary late capitalism, distressing is predominantly pre-fabricated. Jeans arrive already worn looking and softened, promising individuality through standardised industrial processes. A central paradox emerges: the wearer no longer produces the marks of use but purchases them.

Production process Denim Jeans



1. Cotton cultivation & harvest	modern cotton is a resource-intensive crop requiring large amounts of water, pesticides, and labour
2. Processing of fibres into yarn	raw cotton is cleaned, carded, and spun into yarn
3. Spinning & fabric weaving	usually a twill weave, here the fabric acquires its characteristic strength and structure
4. Dying	most commonly dyed with (chemical) indigo. This process involves repeated dye baths and chemical fixation. Sometimes additional dyeing occurs later during finishing processes.
5. Sewing	labour intensive
6. Washing (& Dying)	stone washing, PP, sanding, laser, etc. ; this stage is particularly chemical-intensive and central to the creation of "distressed" aesthetics > the fabric is being artificially destroyed
7. Finishing & packaging	trimming loose threads, adding labels and buttons, quality control, and packaging

¹² *Ibid.*, 7.

This transformation also marks a reversal in denim's purpose. Once stiff and protective, jeans are now expected to be immediately soft and comfortable. Durability has given way to disposability. Accelerated consumption cycles encourage frequent replacement rather than long-term use, systematically undermining the very qualities that once defined denim. Whereas, an unprocessed pair of denim pants can last over 10 years, the life span of distressed jeans is sometimes not more than 1 or 2 years.

1.5. Denim & Capitalist Contradictions

Jeans are a kind of material witness to the contradictions of capitalist modernity. They promise individuality while enforcing uniformity; they suggest freedom while relying on constrained labour; and appear timeless while being embedded in accelerated cycles of obsolescence.

Their everydayness masks the industrial, chemical, logistical, and human infrastructures that sustain them. The labour embedded in jeans is rendered invisible, as are the environmental costs of cotton cultivation, dyeing, washing, and finishing.

Understanding the international history of denim is therefore not merely a matter of fashion history, but a way of tracing shifting relations between labour, capital, bodies, and meaning. From durable workwear to distressed fast-fashion commodity, jeans encapsulate broader transformations in capitalist production and consumption.

As this report will demonstrate through the case of Türkiye, these dynamics materialise in specific places and bodies under concrete conditions.

The global history of denim provides the backdrop against which contemporary labour struggles and environmental crises can be understood as structural outcomes of a system that has long prioritised appearance over endurance, speed over responsibility, and profit over life.



**SAME
DREAMS
DIFFERENT
LIVES**



2.

Denim in Türkiye: A Multi-Layered Story of Modernisation, Globalisation and Labour

In Türkiye, denim is not merely a popular fashion item; it bears the traces of a complex social transformation deeply intertwined with the desire for modernisation, global production networks, and the hidden costs of labour. Within this picture, Türkiye is not merely an ordinary production hub; it is a unique social context where denim is both produced and consumed, and where its economic and cultural significance takes shape. Today, jeans are seen in Türkiye, just as in the rest of the world, as a symbol of a 'lifestyle' – yet behind this image lies a far more layered reality.

One of Jean's first sociological traces in Türkiye can be found in historian Reşat Ekrem Koçu's 1969 dictionary of clothing. Koçu's definition states that denim trousers were

popular among both 'the misfit sons of wealthy families' and 'labourers and the underclass'¹³. This statement shows that even in its early days, denim trousers were a two-sided social symbol that transcended class boundaries: both a durable work garment associated with the lower classes and an object of 'nonconformity' symbolising youth's defiance of tradition.

Since the 1980s, Türkiye has become a production hub for global brands. Under the influence of brands such as Levi's, Diesel, Mavi, and Colin's, both production technologies and consumption habits were reshaped. The transition from small-scale workshops to large integrated facilities did not only signify economic growth; it also meant the reorganisation of the labour structure. As techniques such as sandblasting, pumice stone washing and subsequent chemical abrasion became widespread, denim was redefined at the centre of the global fast fashion cycle.

These techniques, which artificially construct the 'story' of the fabric, fundamentally changed the value of denim: its charm now came not from its durability, but from the fabric's reshapeability and its ability to adapt to the fast

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¹³ Reşat Ekrem Koçu, *Türk Giyim Kuşam ve Süslenme Sözlüğü* (İstanbul: Sümerbank Kültür Yayınları, 1969), 39–40.



1969

One of the earliest sociological references to denim in Türkiye appears in Reşat Ekrem Koçu's 1969 dictionary, describing it as both a working-class garment and a symbol of youthful nonconformity that transcended social classes.

1980

Since the 1980s, Türkiye has emerged as a global denim production hub, where brands like Levi's, Diesel, Mavi, and Colin's reshaped both manufacturing and consumption, transforming the industry into a cornerstone of fast fashion and reorganising labour structures.



Sewing workshop in Bağcılar, İstanbul
© Vivien Tauchmann, 2026

fashion cycle. This opened the door to a production model that directly threatened workers' health. Sandblasting¹⁴, which became widespread in the 1990s and 2000s, caused hundreds of workers in Türkiye to suffer serious health problems due to silicosis, and dozens to lose their lives. Thus, denim ceased to be merely a garment symbolising freedom and youth; it became part of a production regime that had deadly consequences for those who produced it.

With the advent of the 2000s, chemical processes, laser technologies, and enzyme-based washing techniques expanded the boundaries of denim processing to almost limitless possibilities. Mavi Jeans' description of its jeans as 'living fashion'¹⁵ showed that the industry marketed the almost limitless variety of techniques for processing denim as a kind of innovative success. However, the existence of this 'living' product was built upon the invisible costs of the intense chemicals, speed pressures, and global demand cycles that workers were exposed to on the production line.

Today, denim carries a dual identity in Türkiye: on the one hand, it symbolises an urban, modern, everyday lifestyle and individuality; on the other, it is a global product that conceals the labour exploitation and health hazards endured by factory workers on the production line. Although Türkiye's denim sector is presented as a success story for international brands, the overlooked side of this story lies in the dust inhaled by workers, the chemicals they are exposed to, and the production conditions that the sector does not reveal to the outside world.

Denim in Türkiye should therefore be viewed not merely as a fashion phenomenon, but as a multi-layered socio-economic reality that reveals the tensions between modernisation, class mobility, global supply chains, and worker health. The product's symbolic meaning – freedom, youth, individuality – starkly contrasts with the realities of its production process. Once emerging as the most durable workwear, denim today carries different but conflicting meanings in both the consumer and producer worlds: a fashion object that creates a sense of freedom, but a production chain that threatens workers' freedom and health.

¹⁴ This topic is examined in more detail in the following report: Denim Production in Türkiye: Sustainability in Practice? Between Codes of Conduct and Production Reality

¹⁵ *Blucin* (Istanbul: Mavi Jeans Yayınları, 2003), 88.



2000s

Advances in chemical, laser, and enzyme-based techniques made denim processing almost limitless. Marketed as innovative "living fashion," this evolution masked the unseen toll on workers exposed to harsh chemicals, intense production speeds, and global demand pressures.



Now



Washing and finishing facility in Gaziosmanpaşa, İstanbul
© Vivien Tauchmann, 2026

3.

Tracing Denim Production in Türkiye: A Multi-Layered Research Methodology

The prevailing view on denim production is now entirely shaped by the concept of “fast fashion,” driven by advancing technology and a massive increase in production volume. This shift has fragmented responsibilities and oversight mechanisms while spreading production across a global network. Accepting the current situation as merely “an inevitable function of the global system” rationalizes and obscures rights violations and environmental damage in production processes. To break this invisibility, the research examines production methods, sustainability claims, and labor experiences together. This study is not an attempt to collect quantitative data, but rather an effort to provide a qualitative understanding of the invisible layers of production. In this vein, the study is structured around a

multi-actor methodology that extends from certification programs to fabric manufacturers, and from garment factories to basement workshops.

The field research was carried out through a series of steps designed to emphasize experiential depth rather than statistical generalization.

Three certification programs claiming transparency were contacted; direct interviews were conducted with two of them, while one shared only the policy documents available on its website. Large-scale denim fabric manufacturers in Türkiye were approached, but only one responded positively to the interview request; the lack of response from the others was considered an indication of corporate opacity in the sector. Interview requests were also sent to high-capacity factories operating in major production hubs such as Istanbul, Malatya, Şanlıurfa, and Tekirdağ, including those claiming to practice sustainable and fair production; however, physical access was not possible due to security barriers and the inability to reach authorized personnel. This situation was recorded as significant data regarding sectoral transparency.



Storage of one facility, Esenyurt, İstanbul

© Vivien Tauchmann, 2026

Workshops carrying out washing, dyeing, and surface treatment represent the most “invisible” links in the production chain. Dozens of workshops in industrial sites and neighborhoods in Istanbul were surveyed; alongside limited internal interviews, detailed observations were made regarding the surrounding areas and externally visible production practices. Due to the closed nature of these spaces, field research relied on acceptable indirect access rather than formal interview requests, enabling the documentation of largely uninspected processes.

Central to the research are worker interviews reflecting the labor dimension of production. Interviews were conducted with workers employed in factories within global brand supply chains, as well as experienced workers active since the early 2000s, when the textile sector underwent fast fashion transformation. Emphasis was placed on diversity of experience rather than number, with in-depth interviews including women and unionized workers.

This approach made it possible to reveal that denim is not just a technical process, but a complex production regime shaped by pressure for speed, cost, and flexibility, and often deliberately rendered invisible.

The field data presented in this section provides a basis for evaluating the current functioning of denim production in terms of workers' rights, sustainability claims, and fast fashion dynamics. In the following sections, these multi-layered field findings will be analyzed to reveal the structural contradictions of the denim industry.

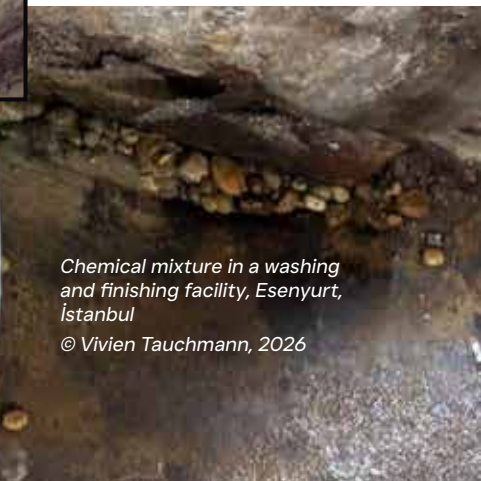
*Mix of pumice stone and Potassium Permanganate waste underneath dryer drums, Esenyurt, İstanbul
© Vivien Tauchmann, 2026*



*Mix of pumice stone and Potassium Permanganate waste, Esenyurt, İstanbul
© Vivien Tauchmann, 2026*



*Chemical mixture in a washing and finishing facility, Esenyurt, İstanbul
© Vivien Tauchmann, 2026*



4.

Denim After History: The Logic of Contemporary Production

4.1. General Information on Denim Production

Although denim production is presented as a technological marvel spanning from yarn to final packaging, each stage actually relies on intensive human labour and the irreversible consumption of environmental resources. Today, this process has evolved from a traditional approach focused on durability to a “fast fashion” regime focused on speed, flexibility and low cost.

The production cycle begins with the conversion of cotton fibre into yarn; the subsequent ‘indigo’ dyeing process involves dyeing only the outer surface of the warp threads, giving the denim its characteristic wear and colour fading over time. Denim fabric, formed by combining dyed warp threads with undyed weft threads using the ‘twill’ weave technique, undergoes a complex

sewing process during the garment manufacturing stage.

The rigid structure of denim and the complexity of the assembly stage require intensive manual labour based on skilled craftsmanship at every step of the sewing process, despite technological advances. However, the continuation of this labour-intensive structure stems not from technical impossibility, but rather from the fact that low labour costs are seen as more profitable than expensive automation investments.

The stage that truly determines the product's market value and gives it its aesthetic identity is the washing and surface treatments applied after sewing. Techniques such as stone washing, enzyme applications, bleaching, laser or ozone are used to give the product a ‘vintage’ or ‘worn’ look. However, these processes are the point in the production chain where the environmental impact is most concentrated due to high water, energy, and chemical usage, and where risks to worker health peak. Although sustainability¹⁶ discussions around this stage tend to centre on environmental impact, worker health risks at the washing phase are equally concentrated at this point in the production chain – and must be recognised as an equal part of the sustainability conversation.

¹⁶ This topic is examined in more detail in the report: [Denim Production in Türkiye: Sustainability in Practice? Between Codes of Conduct and Production Reality](#)



Modern production methods have created a significant gap between the physical lifespan of denim garments and the market-imposed lifespan. Although brands typically state a product lifespan of 2-5 years¹⁷, polyester blends in the fabric and intensive bleaching processes significantly shorten this period in practice. While an unprocessed denim trouser can last over 10 years, aesthetically distressed products sometimes become unwearable within a year. This situation triggers the need for more frequent purchases, fuelling the fast fashion cycle and bringing with it enormous resource consumption.

Global data highlights the severity of this situation:

- ⇒ Approximately 10,000 litres of water are required to produce a single pair of denim trousers¹⁸.
- ⇒ The industry uses approximately 50,000 tonnes of synthetic indigo and 84,000 tonnes of sodium hydrosulphite annually¹⁹.
- ⇒ Over 4.5 billion pairs of jeans are sold worldwide each year²⁰.
- ⇒ The production of a pair of jeans takes an average of 15 minutes and involves 12 steps²¹.
- ⇒ The global volume of the sector is \$98.63 billion in 2025²².

Despite this enormous production volume, not even 1% of textile waste undergoes recycling²³, leaving the world with enormous mountains of textile waste. Although it is technically possible to reduce chemical and water usage by up to 50%²⁴ with improved and more sustainable production methods, it does not seem feasible to build an ecologically and humanely fair system unless production volumes change and the pace of fashion slows down

4.2. Denim Production in Türkiye

According to 2025 data, Türkiye ranks third in denim production and exports after Pakistan and Bangladesh²⁵. In 2024, 71.9% of Türkiye's total denim clothing exports were to EU countries²⁶. Approximately 100 global textile brands manufacture in Türkiye through contract manufacturing or authorised factories; approximately 60 of these brands include denim garments in their product range. The fact that six of the world's largest denim fabric production facilities are located in Türkiye demonstrates that the country is a hub not only for ready-to-wear clothing but also for fabric production.

This scale makes the question of how production is organised even more critical.

¹⁷ Denim Society, "How Long Should a Pair of Jeans Last?," accessed January 20, 2026, <https://www.denimsociety.com/blogs/news/how-long-should-a-pair-of-jeans-last>.

¹⁸ United Nations Climate Change, "UN Helps Fashion Industry Shift to Low Carbon," accessed January 20, 2026, <https://unfccc.int/news/un-helps-fashion-industry-shift-to-low-carbon>.

¹⁹ Olivia Ferrari, "Blue Jeans Are Terrible for the Environment—But a New Discovery Could Help," National Geographic, accessed January 20, 2026, <https://www.nationalgeographic.com/environment/article/blue-jeans-indigo-indican-enzyme>.

²⁰ Maersk, "Denim Chronicles: The Journey of Jeans," accessed January 20, 2026, <https://www.maersk.com/news/articles/2021/02/19/the-journey-of-jeans>.

²¹ *Ibid.*

²² Yahoo Finance, "Global Jeans Market Set to Reach USD 140.35 Billion by 2031 with a Focus on Sustainability," accessed January 30, 2026, <https://finance.yahoo.com/news/global-jeans-market-set-reach-101100707.html>.

²³ European Parliament, "Environmental Impact of the Textile and Clothing Industry," accessed January 30, 2026, [https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/633143/EPRS_BRI\(2019\)633143_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/633143/EPRS_BRI(2019)633143_EN.pdf).

²⁴ Nergis, B., et al. (2023). Water conscious blue jeans washing process: A case study of Türkiye. *Tekstil ve Konfeksiyon*, 33(4), 322–329. <https://doi.org/10.32710/tektstivekonfeksiyon.1086741>

²⁵ Volza, "Denim Exporting Countries," accessed February 10, 2026, <https://www.volza.com/p/denim-export/#top-10-denim-exporting-countries>.

²⁶ İstanbul Hazır Giyim ve Konfeksiyon İhracatçıları Birliği, "Türkiye Denim Giyim İhracat Raporu, 2019–2024/ Ocak–Haziran Dönemi," accessed January 20, 2026, <https://www.ihkib.org.tr/content/files/uploads/51/denim-giyim-raporu-2024.pdf>.

Denim production in Türkiye follows the multi-layered structure of the global garment value chain. Tier-1 factories, with which brands contract directly, form the visible part of the chain. However, production is not usually transferred linearly from Tier-1 directly to the lower tiers. Intermediary export companies, trading companies and subcontracting mechanisms become involved in the process. Orders may be split between different businesses, and certain stages of production may be shifted to other facilities. These intermediate layers make it extremely difficult to track the supply chain. As the chain moves downwards, contractual ties weaken, control capacity diminishes, and production takes on a more fragmented structure. There is no fixed limit to this fragmentation; it is constantly reshaped according to order volume, delivery time and cost pressures.

It is observed that a significant portion of workshops operating at the Tier-2 and Tier-3 levels do not work directly with brands but rather through intermediary export companies. Price updates are generally made once a year. However, in the face of high inflation and rising input costs, these updates quickly lose their effect. Cost pressures are passed down the chain. Since workshops below Tier-1 deal exclusively with intermediary exporters rather than brands directly, the extent to which cost

pressures are passed further down the chain remains largely untracked. This situation manifests itself in the form of shorter production times, increased workloads and the spread of flexible working arrangements.

The consequences of this structure of denim production are clearly visible in the day-to-day operations of production. The fragmented supply structure and cost pressures directly shape not only the organisational form of production but also the pace of work and production conditions. The field observations discussed below do not constitute a complete account of the labor regime; however, they offer a concrete lens through which its practical operation can be understood.

a. Decline in the industry

According to Social Security Institution's data²⁸ in Türkiye 4,504 workplaces in the textile and ready-to-wear clothing sector have closed in the last two years; employment stood at 1,169,314 in January 2025 and was reported as 1,013,153 in January 2026. Approximately 150,000 jobs were lost within a year. These figures cover the textile and ready-to-wear sectors as a whole; however, as denim production is an important component of this structure, the decline is felt to the same extent in the denim sector.

“When you can't get a pay rise from the company, you can't pay the workers here, and they don't want to work either. Are they right? They're absolutely right! Because life really is expensive.”²⁷

A Small Workshop Owner, Istanbul

²⁷ For a collection of statements from various stakeholders obtained from the field research see: Denim Production in Türkiye: Sustainability in Practice? Between Codes of Conduct and Production Reality

²⁸ Social Security Institution, "Insured Statistics," Monthly Bulletin, November 2025.



Potassium Permanganate spray stations, Esenyurt, Istanbul

Observations made at the Istanbul Laundry Industrial Site in Esenyurt revealed that approximately half of the workshops were empty or not producing anything. At the sewing workshops in Bağcılar, it was found that many businesses had their signs up, but the workshops had either moved or closed down.

The shift of textile production to Egypt is a development that has been discussed in the field and has been in the public eye and economic press for some time. Increasing costs and discussions regarding the investment environment have led to part of production being directed to Egypt. This trend suggests that the transformation in the sector is not merely a temporary contraction but rather points to a more permanent repositioning process.

Factory closures often result in workers being dismissed without receiving their full entitlements. The resistance by workers at Şık Makas²⁹, one of Türkiye's leading jeans manufacturers, which was ongoing at the time of writing, is a recent example of this process.

Şık Makas Workers

Şık Makas, one of Türkiye's largest industrial firms and a manufacturer of denim for global brands such as Zara, H&M and Levi's, began relocating its production to Egypt in 2025 due to lower labour costs. During this process, the workers who were made redundant were not paid their wages or severance pay. When approximately 1,700 workers, unable to receive their wages, resorted to a strike, the company dismissed around a thousand workers who had taken part in the action. Following international pressure, wages were partially paid; however, as severance pay and other entitlements have yet to be resolved, the protest is still ongoing as of the date of this report.

As the sector shrinks, workers are losing not only their jobs but also their professional continuity. As stated in the interviews, a worker who had worked in textiles for many years began working as a roofer because he could not find a job; however, he fell to his death while working in an area where he was inexperienced – and also unsafe. This example shows that in times of crisis, workers cannot continue doing the jobs they know and are pushed out of their areas of expertise.

b. Retired Workers: Working as a Reflection of the Economic Crisis

One notable observation in the workshops is the presence of retired workers. Rather than constituting a widespread and defining structural problem on its own, this situation should be understood as one of the concrete reflections of the ongoing economic crisis within the sphere of production. In some workshops, it was observed that approximately half of the workforce is of retirement age. While workshop owners often explain this by referring to the need for “experienced craftsmen,” field observations suggest that this phenomenon must be considered in relation to the level of retirement pensions and the worsening economic conditions. It indicates that retirement does not necessarily mean an

“We used to calculate costs like this: we could buy two balls of yarn for every pair of trousers we made, but now we can only buy one ball for every four pairs we make.”

A Small Workshop Owner, Istanbul

²⁹ Bianet, “Şık Makas Workers Defy the Tokat Governor's Ban: The Resistance Continues,” accessed February 12, 2026, <https://bianet.org/haber/sik-makas-workers-defy-the-tokat-governors-ban-the-resistance-continues-312405>.



washing and finishing facility in Gaziosmanpaşa, Istanbul

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actual withdrawal from working life; instead, economic vulnerability compels many individuals to remain in the production process.

Another issue concerning the employment of retired workers relates to social security practices. There is a widespread but mistaken belief that retired individuals cannot be employed as insured workers. In fact, current legislation does not prevent retirees from working as insured employees. Nevertheless, in practice, retirement status is often used as a justification for uninsured employment. This situation contradicts the legal framework and points to the normalization of informal labor.

c. Trade Unionisation

In Türkiye, there are a total of 18 trade unions in the textile, ready-to-wear and leather sectors. According to Türkiye's Official Gazette data, the number of registered workers in the sector is 1,013,153³⁰. During the same period, the number of unionised workers was reported to be 82,824. These figures indicate that the unionisation rate in the sector is approximately 8.2%. In other words, the vast majority of workers remain outside of union organisation.

In Türkiye, for a trade union to be able to negotiate a collective bargaining agreement, the relevant union must also have at least 1% of the total workforce in the sector as members. This threshold constitutes a structural barrier that makes it difficult for trade unions to obtain collective bargaining authority, particularly in the garment and denim sectors, where fragmented production structures prevail.

The systematic nature of employers' pressure against unionisation efforts is evident both in publicly reported cases and in interviews. In addition to unfair dismissals, it is reported that workers who are members of unions deemed 'inappropriate' by the employer are subjected to mobbing; they are isolated within the workplace, transferred to more difficult or undesirable departments, or given additional workloads. The struggles of Digel Tekstil³¹ workers and Baykan Denim³² workers are examples of this situation that have been reflected in the public sphere.

“When we ask the boss or the manager for our rights, they say we are insulting them. That's how they see it. We just want a decent wage.”

A Worker,
Kahramanmaraş

³⁰ Republic of Türkiye Official Gazette, 17 January 2026.

³¹ Evrensel, "273 Gündür Direnen Digel Tekstil İşçileri: 'Dayanışmamızı Büyüterek Mücadelemize Devam Edeceğiz,'" accessed January 20, 2026, <https://www.evrensel.net/haber/578293/273-gundur-direnen-digel-tekstil-iscileri-dayanishmamizi-buyuterek-mucadelemize-devam-edecegiz>.

³² Temiz Giysi Kampanyası, "Depremzede Baykan Denim İşçileri Kazandı," accessed January 20, 2026, <https://www.temizgiysi.org/depremezede-baykan-denim-iscileri-kazandi/>.

Digel Textile At Digel Tekstil, a company based in Germany and operating in İzmir-Türkiye, workers unionised at the start of 2025 to protest against low wages and harsh working conditions; over 60 per cent of the factory's workforce joined the union. Management opposed this process and lodged a legal challenge against the union's authority; the court ruled that management had acted in bad faith and imposed a fine. Despite this, management dismissed 15 workers who had led the unionisation drive without compensation. The workers also claim to have been subjected to harassment and bullying, particularly female employees. As of the date of this report, the dismissed workers are continuing their resistance to secure their rights.

*Sewing workshop in Bağcılar, İstanbul
© Vivien Tauchmann, 2026*



Baykan Denim Following the earthquake that struck south-eastern Türkiye in February 2023, claiming the lives of over 50,000 people, Baykan Denim, a denim manufacturer based in Malatya–Türkiye, dismissed workers who were unable to return to the factory without compensation, exploiting a legal loophole. After a long struggle, and as a result of international pressure from workers' organisations, the Inditex group persuaded the company to pay severance pay; other brands, however, avoided getting involved in the process. This case clearly demonstrates that international brands only take action against rights violations in their supply chains when their brand reputation is at risk.

The experiences of the workers interviewed are consistent with this picture. Some workers stated that joining a union meant 'feeling more represented' in the workplace and provided collective strength. However, this process often involves pressure and the risk of dismissal. It was also reported that, particularly in small workshops, the condition of employment is linked to 'not joining a union'.

Özak Tekstil In late 2023, workers at Özak Tekstil in Şanlıurfa—a supplier producing jeans for Levi Strauss & Co.—went on strike following the dismissal of a young woman who had joined the independent trade union BİRTEK-SEN. What began as an individual case quickly evolved into a collective movement addressing low wages, long working hours and a lack of representation.

While management responded with intimidation and anti-union practices, local authorities banned the strike and dispersed the demonstrations. Around 400 workers were dismissed, and it was reported that some were offered reinstatement only if they resigned from the union. Although the brand acknowledged that its supplier code of conduct had been breached, production continued.

The struggle at Özak Tekstil highlights both the necessity and the fragility of worker organisation within global denim supply chains, where economic priorities often take precedence over stated commitments to workers' rights.

The struggle of the Özak Tekstil workers was still ongoing at the time this research report was prepared.



*Industrial site where small scale washing and finishing facilities are located, Esenyurt, İstanbul
© Vivien Tauchmann, 2026*



*Sewing workshop in Bağcılar, İstanbul
© Vivien Tauchmann, 2026*

Global brands declare their support for freedom of association in their public documents (e.g. Levi Strauss & Co. Code of Conduct³³). However, practices observed in the field show that the actual exercise of trade union rights faces serious obstacles in production units of different scales, including Tier-1.

d. Migrant labour

Migrant labour in Türkiye has long been positioned as a source of cheap and insecure labour in the garment industry; field observations indicate that this pattern also holds true in denim production. Lower wage expectations, insecure status, and limited knowledge of rights render migrant workers a vulnerable labour force.

A large-scale washing workshop observed employed a significant number of migrant workers. Mattresses were placed in an open section on the second floor of the production area, where piles of jeans were stored. The owners stated that some workers who had no accommodation stayed there, presenting this as a kind of convenience. However, the transformation of the production space into a living area reveals an arrangement where working and living conditions are intertwined, and insecurity takes on a spatial dimension. This situation is not an exceptional occurrence but

rather one of the consequences of informal and flexible production methods.

e. Labour or machinery?

The process of applying patterns to fabrics at the same facility is carried out both manually with sandpaper and using a laser machine. Whereas 15 workers used to be employed for sanding, this number has now fallen to 3; the business owner explains this situation by stating that it is difficult to find skilled craftsmen. It is stated that the labour of 12 workers required in the workshop has been replaced by the laser machine. Nevertheless, according to the business owner, the laser machine is still more costly. The decisive factor here is not technical inadequacy, but the market value of labour. The employer's statement points to a cost regime in which human labour is seen as cheaper than machine investment. Under these conditions, automation is considered an unnecessary expense rather than progress.

“The dirtiest jobs become migrant work because migrants have no alternatives.”

A Denim and Labour Expert, Istanbul

“I always wonder who wears these jeans, because I can't wear them.

I always wonder who can afford to buy the jeans I produce.”

A Worker, Kahramanmaraş

³³ Levi Strauss & Co., “Supplier Code of Conduct,” accessed February 2, 2026, https://www.levistrauss.com/wp-content/uploads/2022/09/LSCo_Code-of-Conduct.pdf.



Denim production in Türkiye has a high export capacity and operates within a structure integrated with global brands. However, this structure produces a system characterised by uncertainty and insecurity at lower levels, driven by a production approach focused on competition and speed. Retired workers remaining in the workforce out of necessity, the precarious position of migrant labour, obstacles to trade union organisation, closing workshops, the actual erosion of social security practices, and fragmented supply chains are interconnected aspects of this process. Each of these topics warrants comprehensive examination on its own; however, when considered together, they reveal more clearly the labour regime upon which denim production is based today and how this regime is sustained.

The effects of this production model cannot be assessed solely through wages, employment or export data. Labour conditions and environmental outcomes, production pace and health risks, and competitive pressure and chemical usage intensity are not separate from one another. The ecological burden created by denim production and its effects on worker health are integral parts of this structure. For this reason, the intersection of environmental aspects of production and its impact on health and life will be examined in detail in the report forming the field research part of this study, titled "Denim Production in Türkiye: Sustainability in Practice? Between Codes of Conduct and Production Reality".



JUST FASHION

Wastewater mixed with potassium permanganate running onto the street, Esenyurt, İstanbul

© Vivien Tauchmann, 2026



5. CONCLUSION:

Towards a Just Transition

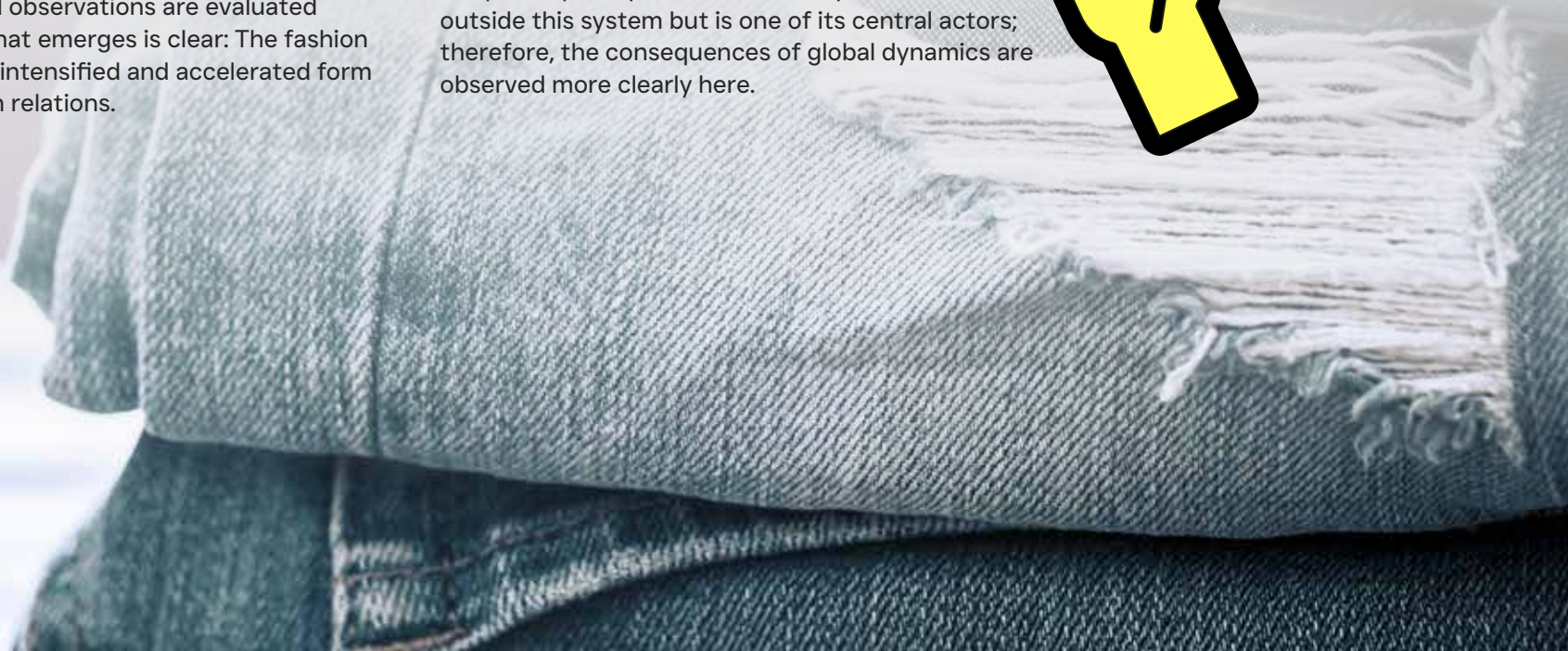
Fast fashion is a production system that operates on a global scale, involving multiple actors, distributed, and at the same time multi-layered. Examining denim, the most symbolic and widespread product of this system, makes the functioning of this complex structure more visible. Denim is not merely a clothing item; it serves as a lens through which to understand how global production networks are established, how capital and labor are positioned, and how the relationship between humans and the environment is shaped.

This study examines denim from the perspectives of global production networks, labor regimes, and rights. Of course, each topic discussed here requires more comprehensive research in its own right. However, when desk research and field observations are evaluated together, the picture that emerges is clear: The fashion system operates as an intensified and accelerated form of capitalist production relations.

The multi-layered and largely invisible structure of supply chains leads to the diffusion and obscuring of responsibility. In this network, which extends from billion-dollar brands to small workshops, human labor still forms the backbone of production; however, workers often remain the most invisible actors in this system. Sustainability, meanwhile, has become a window-dressing element, limited to incomplete and fragmented practices that are often shaped by the trends of the moment.

This picture is not unique to Türkiye. The fast fashion system operates with a similar logic regardless of the country where production takes place: low cost and high speed expectations determine production; risk and uncertainty are concentrated in the more fragile areas of production; flexibility becomes the primary competitive tool. Türkiye is not outside this system but is one of its central actors; therefore, the consequences of global dynamics are observed more clearly here.

**SAME
DREAMS
DIFFERENT
LIVES**



The structure we are trying to understand through the example of Türkiye may appear complex and, at times, hopeless; however, this situation is not inevitable. The clear and precise definition of responsibilities within the production network is of vital importance. This responsibility falls primarily on global brands, as well as all actors in the supply chain and regulatory mechanisms. Voluntary commitments cannot bring about this transformation; the construction of a fair production system requires globally binding rules with enforcement power.

Transparency cannot be limited to the visible links in the supply chain. Brands must share all production tiers, including subcontractors, with the public; audits must address not only the manufacturers with whom direct contracts are held, but also the lowest links in the chain. Governments must strengthen their legislation to oversee this multi-layered structure; responsibility must be extracted from a diffuse and ambiguous structure within the chain and transformed into concrete and enforceable policies.

Sustainability must go beyond being merely a marketing narrative measured by environmental indicators. Human sustainability – the ability of labour to exist under conditions that are dignified, safe and free to organise – is an integral part of this debate. The climate crisis is no longer a distant scenario, but a concrete reality manifesting itself on production lines and in workers' bodies; climate justice and labour justice are complementary, inseparable struggles. Questioning the excessive production cycle of fast fashion is therefore inevitable – yet at the heart of this questioning must lie the visibility and rights of the workers at the core of the production network.

The story of denim production is not merely the story of an industry; it is a mirror of today's global production system and the inequalities it creates.



Workplace security signs in washing and finishing facility in Gaziosmanpaşa, İstanbul
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JUST FASHION 

Denim Production
in Türkiye:

**FROM
WORKERS'
WEAR TO
WORKERS'
HARM**

XXXXXXXXXX XXXXXXXXXXXX
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