

Alexander Borodin — 1833-1887

A Life of Music & Chemistry

Collated and presented by Margaret Marsh : 24 October 2024



“I’m a composer in search of oblivion;

I’m always slightly ashamed to admit I compose.”

**So said one of the most brilliant Russian scientists
of his generation, for whom composing was only a hobby.**

Welcome to the world of genius composer

Alexander Borodin

physician, chemist, scientist, teacher and composer.





Alexander Borodin, 1833-1887

Borodin had a decidedly unconventional start in life.

He was born in St. Petersburg, the illegitimate son of Prince Luka Gedianov, an elderly Georgian nobleman who had enjoyed the intimate company of the beautiful and intelligent Evdokia Antonova, the wife of an army doctor.

The unplanned result was baby Alexander!

To save any public embarrassment, Luka registered his birth under the name of one of his serfs, **Porfiry Borodin**. He was now a serf.

But, just before Luka's death in 1840 he freed the boy from serfdom, and provided a large 4-story house and financial support for his son and his mother.

Alexander was brought up and tutored by his devoted mother and her female friends and relations. In this warm, feminine atmosphere the sensitive, intellectual side of the boy's nature flourished unhindered.

Polka "Helen"

for Violin, Clarinet, and Piano

Alexander Borodin
arr. by The Kat Trio

The image shows a musical score for the polka "Helen" by Alexander Borodin, arranged by The Kat Trio. The score is written for Violin, B♭ Clarinet, and Piano. It consists of two systems of staves. The first system includes a Violin staff with a tempo marking of "Not fast" and a dynamic marking of "p", a B♭ Clarinet staff with a dynamic marking of "p", and a Piano staff with a tempo marking of "Not fast" and a dynamic marking of "p". The second system continues the music for all three instruments. The key signature has one sharp (F#) and the time signature is 2/4.

1843 : Borodin is 9

He is bright, excelling at languages and music – he learned to play the piano, flute, and cello.

His first musical composition was inspired by his first love, a girl named Elena, and in her honour he wrote the polka "**Helen**" ...

https://www.youtube.com/watch?v=x9sAV2Y9_98 [2:00]

When he was a teenager, Borodin spent most of his time studying chemistry, making fireworks, and experimenting with galvanism ... the generation of electric current by a chemical action.





1850 : Borodin is 17

He successfully passes the exams and is enlisted in the **Medical-Surgical Military Academy** in St. Petersburg.

In 1856, he brilliantly passes his final exams and is assigned to undergo compulsory medical practice as a junior doctor in the Army Forces hospital.

In 1858, he successfully defends his thesis for the degree of **Doctor of Medicine**, followed by three years of advanced scientific study in western Europe.

[https://en.wikipedia.org/wiki/S. M. Kirov Military Medical Academy](https://en.wikipedia.org/wiki/S._M._Kirov_Military_Medical_Academy)

1862: Borodin returns to Russia and is elected **Professor of Chemistry** at the Academy. He lectured and taught students there until the end of his life. He also undertakes research in organic chemistry, which leads to the discovery of the ***aldol reaction***, which is still used in the pharmaceutical and plastics industries.

https://en.wikipedia.org/wiki/Aldol_reaction

Some experts in the field believe that he discovered the first link of cholesterol to heart disease 40 years before it was “officially” recognised.



Borodin – the Gentleman Composer

His real love is Chemistry & Science ... Music was fun!

Borodin was what you might call a **gentleman composer**, he was first and foremost a scientist, but music was what he did for fun.

1855 – Chamber Music

String Trio in G Minor for 2 Violins and Cello. [7.52]

<https://www.youtube.com/watch?v=DRF90Gdm6Mk>

This composition dates from 1855, when **Borodin is 22** and was living in Germany. Unlike his other music from this period, it escapes the influence of Mendelssohn, largely because it is based on a well-known Russian folk song, “*What have I done to hurt you?*”.



1861 : Ekaterina

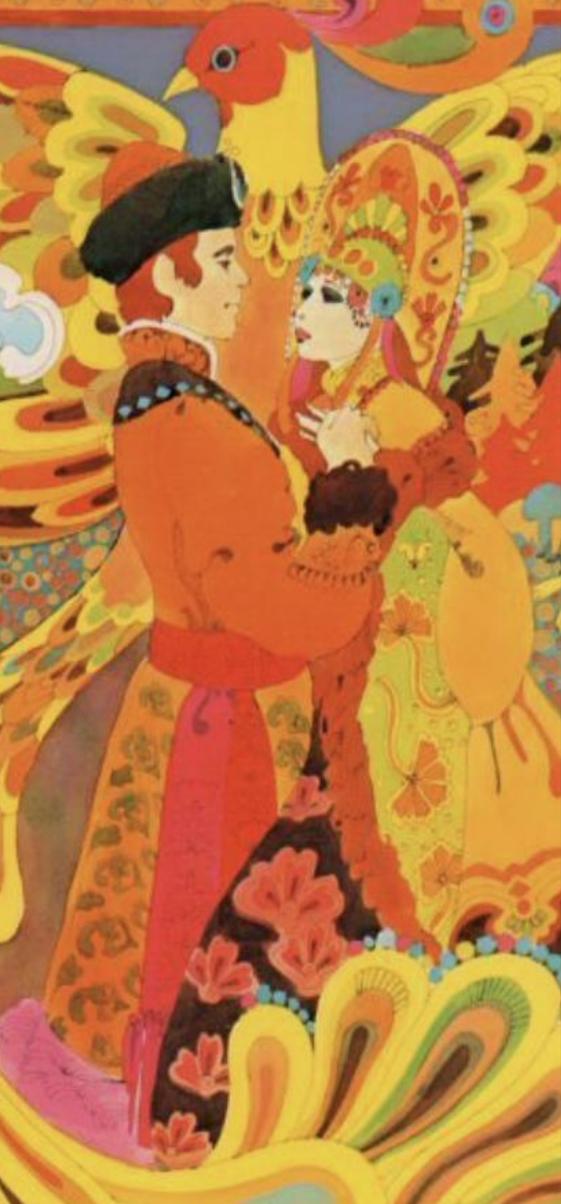
At 28, Borodin was undertaking post-doctorate studies in Heidelberg when he meets his future wife, **Ekaterina Protopopova**, a brilliant 29-year-old piano virtuoso, who effectively turns his life around, inspiring in him a taste for her favourite composers, Chopin and Schumann. The immediate result was the sublime **Piano Quintet in C minor**, the first of Borodin's works to fully proclaim his genius. This is the last work he would complete before his game-changing meeting with Mily Balakirev.

<https://www.youtube.com/watch?v=mUyzhOBtPWQ> [5.23]

She was in Heidelberg for tuberculosis treatment, and when she became sicker and moved to Pisa, Italy for more treatments, he followed her.

They decided to return to Russia and get married, but money problems made them postpone the wedding. Finally, in 1863 they married. Ekaterina's health problems made it difficult for her to tolerate the cold St. Petersburg climate, so she spent long periods of time living with her relatives in Moscow.

Borodin was a devoted husband who tenderly cared for his ailing wife. Together they adopted a daughter, Liza. Unlike most people of his time, he agreed with Ekaterina's belief that women deserved to have equal rights, especially in education, and was convinced that females would make good doctors.



1862-1867 : Symphony No.1 in E-flat

At 29 Borodin's hobby was in full-swing when, with chemistry commanding most of his time and focus, he met the imminent Russian composer **Mily Balakirev**, one of the founding fathers of modern Russian music. While under Mily's part-time composition tutelage, Borodin began work on his **Symphony No. 1 in E-flat**. This was a remarkable feat for a part-timer who was building a career in chemistry ... it took 5 years to complete!

It was during this time that Borodin had struck up a lasting friendship with the young firebrand composer **Modest Mussorgsky**, whose melodic style was to have a lasting effect.

*“Borodin’s **Symphony No.1** exudes lyricism and panache and is a work of seamless melodic invention owing something to Mendelssohn, whose influence infuses it with delicious lightness.”*

1. Adagio – Allegro. [13.12]

<https://www.youtube.com/watch?v=dZqu54lpoCY>

2. Scherzo (Prestissimo) - Trio (Allegro). 6.59.

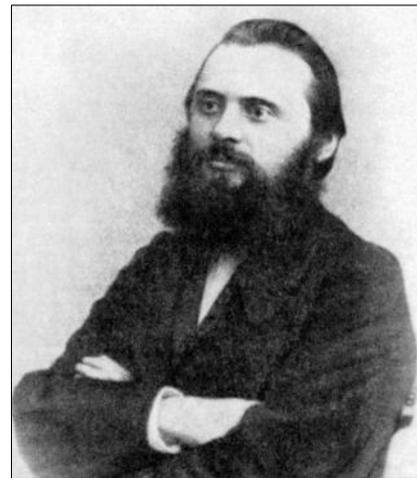
<https://www.youtube.com/watch?v=rFKDdUI4shc>

3. Andante. 8.04.

<https://www.youtube.com/watch?v=nilc4pg8yPQ>

4. Allegro molto vivace. 7.06.

<https://www.youtube.com/watch?v=NJXe8nfYG2o>



Mily Balakirev

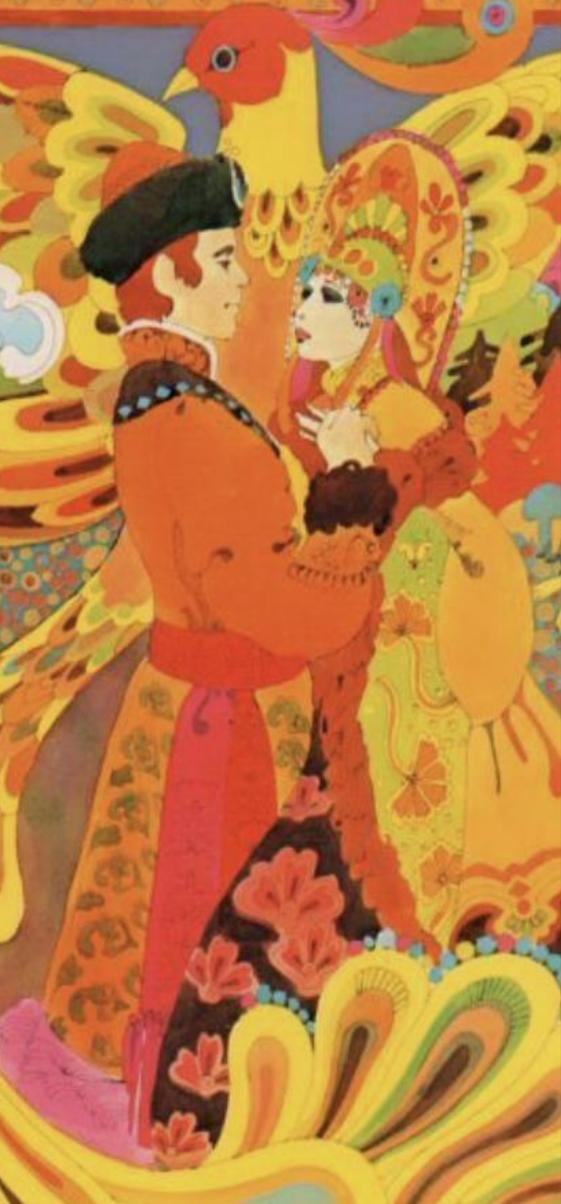
1862 : Borodin is 29 ... he joins “The Five”

Also known as **The Mighty Five** or **The Mighty Handful**, they were five young prominent 19th-century Russian composers living in St. Peterburg, who worked together to create a distinct national style of classical music.

They were all self-trained amateurs, in contrast to the élite status and court connections of Conservatory composers such as Tchaikovsky, The Five were mainly from the minor gentry of the provinces. To some degree their esprit de corps depended on the myth, which they themselves created, of a movement that was more “*authentically Russian*” in the sense that it was closer to the native soil, than the classic academy. Spurred on by Russian nationalist ideas, The Five “sought to capture elements of rural Russian life, to build national pride, and to prevent western ideals from seeping into their culture.” https://www.youtube.com/watch?v=Gv_XmLAyg34 [10.57]



Mily Balakirev 25 (the leader), Alexander Borodin 28, César Cui 27, Modest Mussorgsky 23, Nikolai Rimsky-Korsakov 18



1869 : Symphony No.2 in B-minor

Composed intermittently between 1869 and 1876, it consists of four movements and is considered the most important large-scale work completed by the composer. It has many melodic resemblances to both Prince Igor and Mlada, two opera works that diverted Borodin's attention on and off during the six years of composition.

1. Allegro moderato. [8.15]

<https://www.youtube.com/watch?v=p5CJHczLIWc>

2. Scherzo. Molto vivo. 5.30.

<https://www.youtube.com/watch?v=RusfPVwBT0g>

3. Andante. 8.34.

<https://www.youtube.com/watch?v=rTjsDX8ISeM>

4. Finale. Allegro. 6.55.

https://www.youtube.com/watch?v=ILRyX_zKYIo

Further reading: [https://en.wikipedia.org/wiki/Symphony_No._2_\(Borodin\)](https://en.wikipedia.org/wiki/Symphony_No._2_(Borodin))



1869-1887 : Prince Igor

This opera is considered his masterpiece. It was almost 20 years in the making, and was left unfinished on his death in 1887. It was edited and completed by Rimsky-Korsakov and Glazunov, and was first performed in St. Petersburg in 1890. An opera in four acts adapted from the early Russian epic “The Lay of Igor's Host”, which recounts the campaign of the 12th-century Prince against the invading nomadic tribes of Central Asia in 1185. Borodin also incorporated material drawn from two medieval chronicles.

Polovtsian Dances - Kirov Ballet. [11.00]

<https://www.youtube.com/watch?v=ADJzzBR0qzg>

A Russian film (with English Subtitles) of the opera by Borodin:

<https://www.youtube.com/watch?v=9Z9J560r9q8>

[https://en.wikipedia.org/wiki/Prince_Igor_\(1969_film\)](https://en.wikipedia.org/wiki/Prince_Igor_(1969_film))



The Chronicle Tale of Prince Igor's Campaign. The Polovtsians Raid the Russian Land and Are Resisted by the Russian Princes. Illumination from The Radziwill Chronicle. 15th century. Academy of Sciences Library, Leningrad



1872 : Borodin and Women's Rights

Borodin was a fervent campaigner for women's rights, a radical position to hold in the second half of the 19th century. With the Academy restricted to male students, he was the first to offer courses in medicine to women in the **Women's Medical School** he helped found in St Petersburg. To this day, women make up an unusually high proportion of the doctors in Russia.

For such a high achiever in his professional life, it is ironic that he is most remembered now for the beautiful music that was the product of his downtime, when he would get away from the lab and the lecture hall and simply relax composing music.





1880: In the Steppes of Central Asia – A Symphonic Poem

Celebrating the 25th anniversary of Tsar Alexander II's reign, it is concerned with the encounter between Russia and Central Asia — a fitting topic given the Tsar's expansion into the territory. Unfortunately, the celebration never came to fruition due to the assassination of the Tzar! Borodin dedicated it to Franz Liszt.

The work depicts an interaction between Russians and Asians in the steppe lands of Central Asia. A caravan of Asians is crossing the desert under the protection of Russian troops. The opening theme representing the Russians is heard first. Then, representing the Asians, the strains of an eastern melody played on an English horn. The melodies eventually combine contrapuntally. Amid these two ethnic melodies Borodin inserts a "traveling" theme in pizzicato that represents the plodding hoofs of the horses and camels. At the end, only the Russian theme is heard.

<https://www.youtube.com/watch?v=NBCcXyO9Wt8> [8.47]

Borodin provided the following description in a note to the score:

“In the silence of the monotonous steppes of Central Asia is heard the unfamiliar sound of a peaceful Russian song. From the distance we hear the approach of horses and camels and the bizarre and melancholy notes of an oriental melody. A caravan approaches, escorted by Russian soldiers, and continues safely on its way through the immense desert. It disappears slowly. The notes of the Russian and Asiatic melodies join in a common harmony, which dies away as the caravan disappears in the distance.”



Borodin – The Man

Borodin was a handsome man, six feet tall, dark-eyed, and with a warm smile. He was much liked by all who knew him. As a teacher, he was beloved by his students who said he had a “*brilliant and fascinating personality.*”

He, in turn, was passionately concerned for their welfare, always going out of his way to help them. His classroom was a joy ... he was cheerful, witty and always ready to talk about music or hum a tune as he conducted his experiments. It was said that he could write music no matter where he was ... often, he would jot down a catchy bit of music between classroom lectures.

After work, he would continue with his experiments in the lab next to his apartment. His friends would tell of the many times that he would become fervently involved in music or conversation, then suddenly jump up and dash next door to see whether one of his experiments had boiled over!

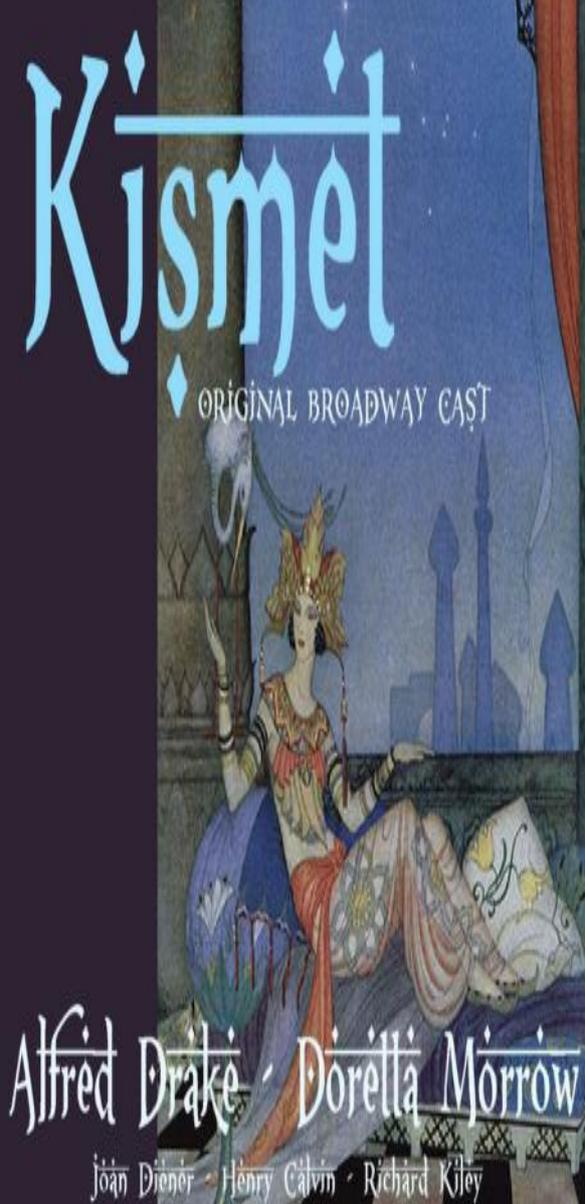
The creative work of Borodin had a huge impact on many generations of Russian and foreign composers ... including Glazunov, Lyadov, Prokofiev, Yu. Shaporin, Debussy, Ravel and others. It constitutes the pride of Russian classical music.

Borodin died at 54 while dancing at the pre-lenten Maslenitsa* festival with friends. His heartbroken wife died five months later.

* *An Eastern Slavic religious and folk holiday*

Best of Borodin - Tales of Love, War, and Redemption. 1 hr 16 min.

<https://www.youtube.com/watch?v=2xsvzpyNVsQ&t=88s>



1953 : From Borodin to Kismet on Broadway

As the music was in the public domain and out of copyright, lyricists Wright and Forrest, who specialised in turning classical music into songs and film scores, used Borodin's music for their Broadway stage musical Kismet:

- In the Steppes of Central Asia: **Sands of Time**
- Symphony No. 2, Movement 1: **Fate**
- String Quartet No. 2, Movement 2: **Baubles, Bangles and Beads**
Movement 3: **And This Is My Beloved**
- String Quartet No. 1, Movement 4: **Was I Wazir?**
- Symphony No. 1, Movement 4: **Gesticulate**
- Petite Suite - Serenade: **Night of My Nights**
- Prince Igor - Polovtsian Dances: **Bazaar of Caravans, Not Since Nineveh, He's in Love, Stranger in Paradise, Samaris' Dance**
- Prince Igor, Act II scene with Ovlur : **My Magic Lamp**
- Prince Igor, Act III trio: **The Olive Tree**
- Prince Igor, Aria of Khan Konchak: **Introduction to Gesticulate**
- Prince Igor, Aria of Vladimir Galitsky: **Zubbediya**

At the 1954 Tony Awards, Kismet won **Best Musical, Best Leading Actor in a Musical and Best Conductor/Music Director.**

Borodin was awarded a posthumous Tony, 68 years after his death!



1955 : Kismet - the movie

The place is Baghdad, **Howard Keel** emerges stage right, legs akimbo, boldly intoning **The Sands Of Time** in one of the best musicals in Hollywood history...

Under André Previn's direction, MGM's Studio Orchestra and stars Ann Blythe, Dolores Grey, Howard Keel and Vic Damone we were held spellbound with such unforgettable numbers as "And This Is My Beloved", "Stranger In Paradise", and "Night Of My Nights."

Everyone was wondering who wrote all those haunting melodies – Kern, Porter, Rodgers? No! When Kismet first went into production, its composer had been dead nearly 70 years.

His name? **Alexander Borodin.**

In 1877, the great Russian composer Tchaikovsky wrote:

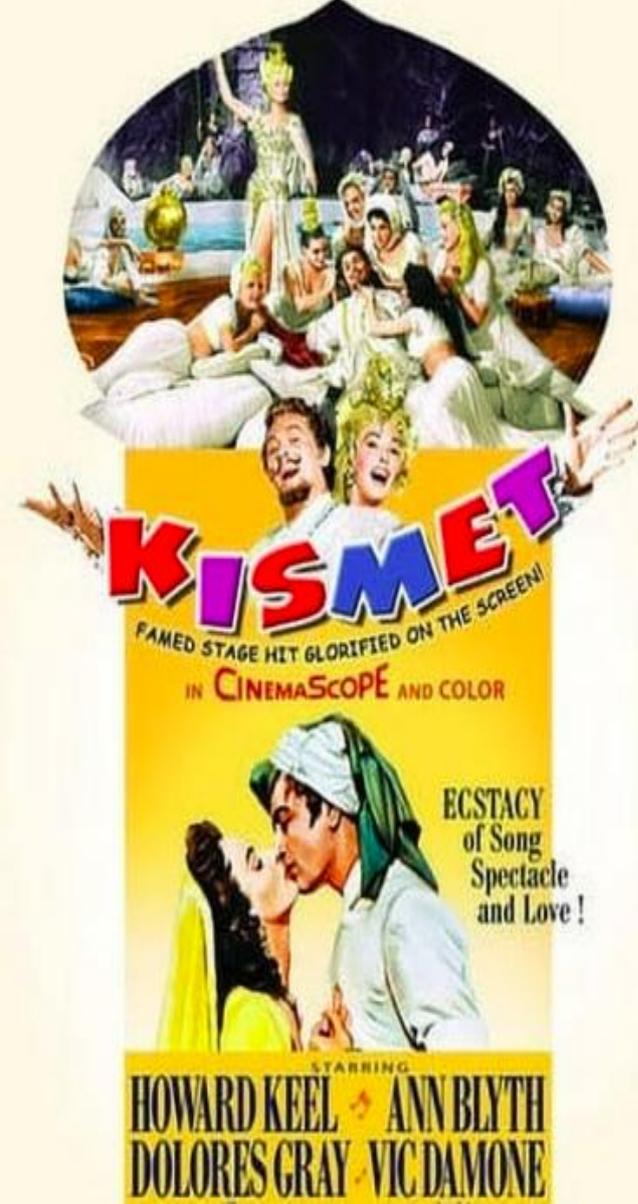
"Borodin possesses a very great talent, which has come to nothing for want of instruction, and because blind fate has led him into the science laboratories."

And there you have it ... Borodin was one of the most naturally gifted of all Russian composers, yet his principal vocation as a brilliant research scientist, chemist and lecturer meant that he spent too little time composing.

Had things turned out differently, who knows what he might have achieved, but at least he left us a handful of masterpieces that provide tantalising glimpses of a great musical mind.

Kismet (1967) – full musical. **1 hr 30 min.**

<https://www.youtube.com/watch?v=UcjOgX4e8Zw>





From Borodin to Kismet

Baubles, Bangles and Beads, Kismet [4.12] <https://www.youtube.com/watch?v=e-RCnOSHZbQ>

String Quartet No. 2, Movement 2 [4.42] https://www.youtube.com/watch?v=JYrS8_orubE

And This Is My Beloved, Kismet [4.26] <https://www.youtube.com/watch?v=wiB1lcbj73Q>

String Quartet No. 2, Movement 3 [7.27] <https://www.youtube.com/watch?v=RKsC xvT8e8Y>

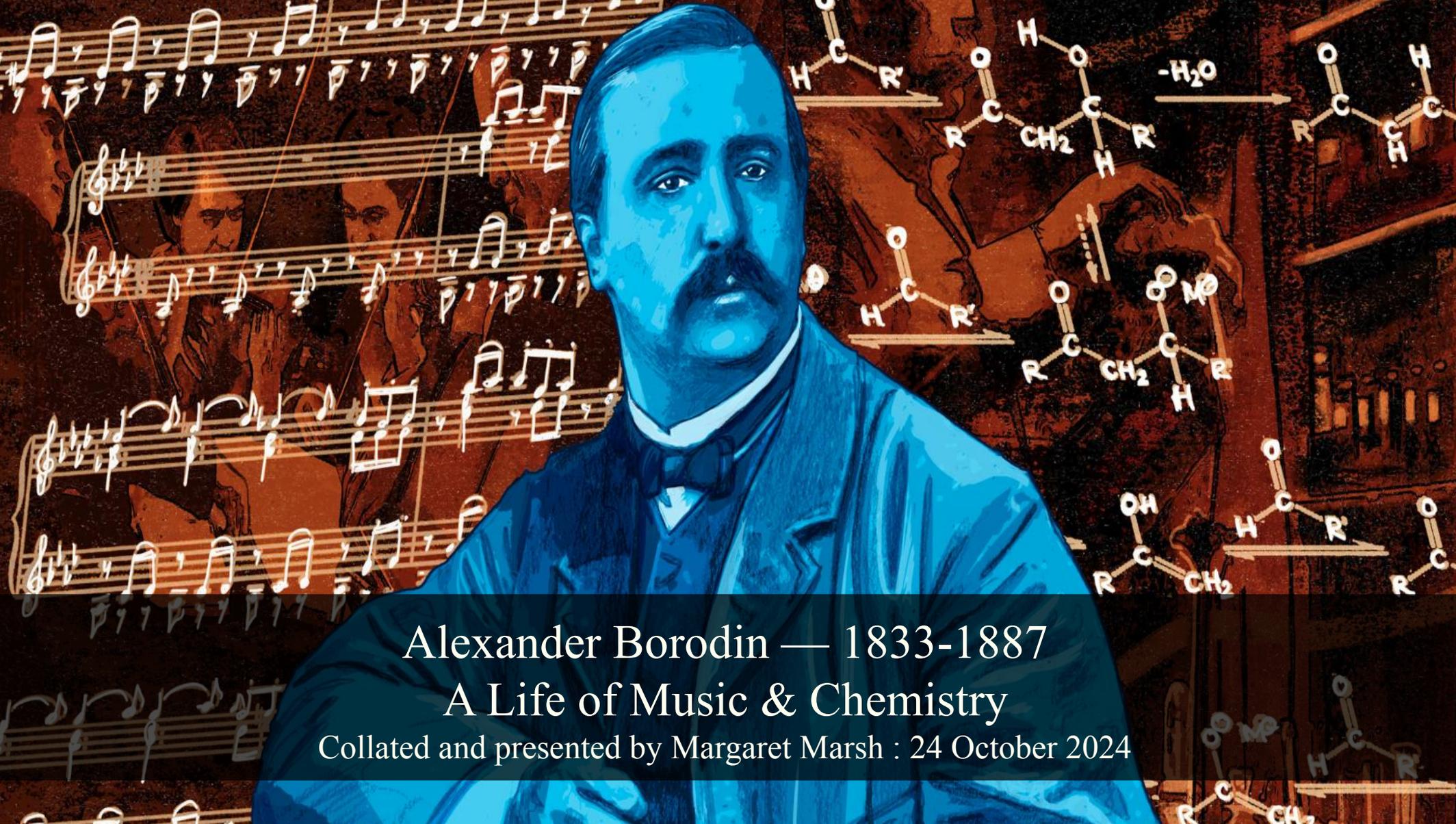
Stranger in Paradise, Kismet [5.06] <https://www.youtube.com/watch?v=OkrySYJuJAO>

Polovtsian Dances from Prince Igor [2.60] https://www.youtube.com/watch?v=rIZuyOC_LZY

Night of My Nights, Kismet [2.32] https://www.youtube.com/watch?v=5k_mkfrUSU8

Serenade, Petite Suite [2.00] https://www.youtube.com/watch?v=_Z74SqOLlaj





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